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ABSTRACT

This study evaluates the impact of the basic core course offerings, as mandated by the Montgomery County, Maryland, Board of Education. In 1981, the Board adopted 19 basic core courses, identifying specific courses in the schools' curriculum that must be offered to all high school students and setting the enrollment guide for the courses. The decision was made in order to enhance the efficacy of countywide programming. The study contains information on the impact of the resolution on course offerings, course enrollment, staffing, class size, policies, and practices. It concludes that: (1) all high schools in the county complied to a great extent with the resolution; (2) senior high schools offered more basic core courses than before; (3) the new requirements had little effect on staffing and staff use; (4) overall class size remained the same in the schools in their implemention of basic core requirements; (5) previous policy decisions, such as the movement toward grades 9-12 versus 10-12 senior high schools and loss of the seven-period day, did not adversely affect implementation of the basic core; and (6) the Board's efforts to improve class size in some courses by mandating minimum sizes in others had more negative than positive effects because students could be deprived of course opportunities by the deletion of small sections. (AOS)

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MONTGOMERY COUNTY
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An Evaluation of the Impact of the Basic Core of Course Offerings on Senior High School Programs

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- MD 022 770

MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

AN EVALUATION OF THE IMPACT OF THE BASIC CORE OF COURSE OFFERINGS ON SENIOR HIGH SCHOOL PROGRAMS

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EXECUTIVE SUMMARY

AN EVALUATION OF THE IMPACT OF THE BASIC CORE OF COURSE OFFERINGS ON SENIOR HIGH SCHOOL PROGRAMS

The Board of Education adopted the Basic Core of Course Offerings by Board Resolution 67-81, January 13, 1981. This resolution identified specific courses in the MCPS Program of Studies, required that they be offered to students in secondary schools, and set guidelines for giving the courses.

At the request of the superintendent, the Department of Educational Accountability undertook an evaluation of the impact of the basic core at the completion of the first year of its implementation. Briefly, the study conclusions are as follows:

- The 22 high schools were found to be in substantial compliance with the requirements of the Basic Core of Course Offerings Resolution. However, there are some instances where the requirements were not satisfied.

- Senior high schools gave more of the courses now identified as basic core after the adoption of the resolution than before.

- The adoption of the Basic Core of Course Offerings Resolution appears to have had little direct effect on school staffing and school staff use. Teachers seem to be fully utilized and had assignments consistent with their job role during the school year studied.

- For the seven high schools selected for more detailed analyses, overall class sizes remained essentially constant for the years immediately before and after the adoption of the basic core.

- Board mandated maximum class sizes appear to have had little effect on the high schools in their implementation of the basic core requirements. Mandated maximum class sizes, however, appear to have impacted schools, and that impact is seen by school administrators as being more disruptive than beneficial. One suggestion from school personnel is to begin using average class size for each teacher, rather than maximum class sizes, as the guideline to trigger adjusting classes.

- Previous policy decisions, such as the movement towards Grades 9-12 versus 10-12 senior high schools and the loss of the seven-period day, did not adversely affect implementation of the basic core.

- The Board proposal to establish minimum class sizes for certain groups of courses in order to improve class sizes in other groups would appear to have more negative than positive effects. Based on the seven school sample, the theoretical improvement in class size is less than one-half student per section under all but one set of assumptions; and less than one student per section in the remaining case. At the same time, students would be deprived of a substantial number of course opportunities because of the deletion of small sections.

The remainder of this Executive Summary outlines by chapter the documentation which supports these conclusions. The complete methodology and details of the analyses and findings are found in the full report.

CHAPTER 1

BACKGROUND AND STUDY DESIGN

The impetus for the Basic Core of Course Offerings came from the Senior High School Study (MCPS, June, 1978) recommendation that "there shall be a comprehensive program of instruction available to each student. Within that comprehensive program, there shall be a basic core of courses, each one of which will be offered in every high school."

The Basic Core of Course Offerings resolution names specific courses for each of 19 subject areas. The basic core courses were given the following categorical designations:

Category 1 -- courses that shall be offered and given in each senior high school regardless of course enrollment

Category 2 -- courses that shall be offered and given when the enrollment in that course is 15 or more students

Category 3 "Other" -- courses listed in the MCPS Program of Studies which are not identified in either of the other basic core categories

For this study, in addition to the grouping of courses by category, the 19 MCPS subject areas were divided into two groups as follows:

Group A -- the six basic core subject areas of English language arts, reading, foreign languages, mathematics, science, and social studies

Group B -- the subject areas of multidisciplinary programs, visual art, music, theatre, cooperative vocational education, industrial education, industrial education/vocational programs, home economics, business education, career education, driver education, health education, and physical education

To guide the conduct of this study, six major questions were posed. They are the following:

1. To what extent is the Basic Core of Course Offerings implemented in all senior high schools?
2. To what degree were courses, now identified as Basic Core of Course Offerings, given by senior high schools prior to the passage of Board Resolution 67-81?
3. To what extent have course enrollments changed to reflect the priorities specified in the Basic Core of Course Offerings resolution?
4. What was the impact of the Basic Core of Course Offerings on staffing?
5. What effect did the implementation of the Basic Core of Course Offerings have on class sizes?
6. What effect does the Basic Core of Course Offerings Resolution have on other system policies and practices or vice versa?

After the data for this study had been collected and during the writing of the report, the Board of Education adopted another resolution (818-22, November 22, 1982) which had the effect of adding a seventh major question:

7. What would be the effect on average Group A course section sizes from changing Basic Core of Course Offerings requirements?

Although all 22 senior high schools were included in the study, seven senior high schools were selected for more in-depth data analyses and for site visits to ascertain their views of the impact of the Basic Core of Course Offerings and to verify data obtained from existing documents showing course offerings, enrollments, and staff use.

CHAPTER 2

EXTENT OF IMPLEMENTATION

The impact of the Basic Core of Course Offerings Resolution on school programs for the 1981-82 school year was reported as minimal by the seven schools surveyed. Although the adoption of the resolution caused those schools to reassess their course bulletins in a short time period, all felt that they were already substantially in compliance with its requirements. Findings tend to support their view of substantial compliance, but they also show instances where the requirements set forth by the resolution were not satisfied.

School Course Offerings

Senior high schools offered to their students the vast majority of the courses listed in the basic core resolution. The median number of courses offered to students for the seven schools represented about 95 percent of the basic core courses. A review of course bulletins for these schools showed only one school offering all of the courses; others lacked from 4 to 22 courses. Schools more consistently offered Category 1 than Category 2 courses. Courses in Group A subject areas were offered to a greater extent than those in the Group B subject areas for both Category 1 and Category 2.

For the 1982-83 school year, the newly published MCPS Course Bulletin was used by all but one of the seven selected senior high schools for course registration. For that year, approximately 90 percent of the basic core courses were offered to students. This drop in the number of courses offered students came mostly from Category 2 offerings.

Basic Core of Course Offerings Given

For the 1981-82 school year, schools were required to offer and give, depending upon options selected and certain minimum enrollments, 158-163 (171-176 in 9-12 schools) courses. No senior high school gave the entire set of Category 1 and Category 2 core courses. The median number of courses given by the 22 senior high schools represented about 85 percent of the core of course offerings. Driver education, with its one course offering, was the only subject area for which all core courses were given by all schools. For the subject areas of industrial education, business education, and health education, every senior high school did not give one or more of the core courses.

Category 1 Courses Given

Senior high schools closely approximated the Basic Core of Course Offerings Resolution requirements in the Category 1 courses which they gave. The number of courses not given by any one school ranged from a low of 2 to a high of 12. If courses given in combination with another course are counted, three schools gave 100 percent of the Category 1 core courses. Giving Category 1 courses in combination classes, however, was specifically prohibited by the resolution. English language arts and foreign languages were the only two subject areas for which all Category 1 courses were given by all senior high schools, but there were combination classes in foreign languages. Cooperative vocational education was the subject area for which most schools did not give one or more of the prescribed courses.

Category 2 Courses Given

For Category 2, the degree to which core courses were given was less than that for Category 1. The median number of courses given by the senior high schools represented only about 60 percent of the Category 2 core courses. Mathematics was the only subject area with multiple course offerings for which all of the courses were given by over 80 percent of the schools. No school gave all of the courses for industrial education, business education, and health education. Few schools gave all of the courses prescribed for foreign languages and social studies. However, schools were only required to give a Category 2 course when the enrollment in that course was 15 or more students. Although existing documents were not available to determine whether or not schools met this requirement, all seven selected schools stated that they did, in fact, give these courses if the enrollment reached 15.

CHAPTER 3

IMPACT OF THE BASIC CORE RESOLUTION ON COURSE OFFERINGS

Senior high schools gave more of the courses now identified as basic core after the adoption of the resolution than before. During the 1979-80 school year, schools gave about 75 percent of these courses; whereas for the 1981-82 school year that percentage was 85.

More Category 1 courses, fewer Category 3 courses, and an increase in the minimum number of courses given by any one school were more in evidence during the 1981-82 school year than in the 1979-80 year.

Category 1 Courses

The median number of Category 1 courses given increased by two from the 1979-80 to the 1981-82 school year. This small increase resulted in a marked improvement in the degree to which the basic core was implemented in three subject areas: English language arts, reading, and social studies.

Several schools also added an additional cooperative vocational education course, but that did not substantially affect the number of schools giving all of the courses for that subject area.

Category 2 Courses

The median number of Category 2 course offerings decreased by one between the two years. But, as many of these courses are routinely given in combination classes, the available data were insufficient to warrant a general conclusion.

Category 3/"Other" Courses

The median number of "Other" courses given decreased by five between the two school years. Social studies, visual arts, music, industrial education, and business education were the subject areas most affected.

Number of Courses Given

The minimum number of courses given by any one school during the first semester increased from 54 in 1979-80 to 65 for the 1981-82 school year. However, there were still large differences among schools in the number of courses they gave. A statistically significant relationship was obtained between school size (student enrollment) and the number of different courses given; generally the larger the school, the more courses were given. This was true even for the required Category 1 courses.

The schools surveyed did not attribute the changes that occurred in course offerings to the adoption of the Basic Core of Course Offerings Resolution. Rather, they saw the changes as resulting from the direction the senior high schools were already taking and from students' increased interest in taking more difficult courses.

CHAPTER 4

IMPACT OF THE BASIC CORE RESOLUTION ON COURSE ENROLLMENT

In general, student course enrollment data support the earlier contention of a move towards greater implementation of the Basic Core of Course Offerings from the 1979-80 to the 1981-82 school year. For the seven selected schools, changes were noted in the proportion of course enrollments and in the numbers of singleton course offerings among basic core categories and subject area groups. In addition, a pattern of course selection by students with varying ability levels was documented.

Course Enrollments

Student enrollments in Category 1 courses increased from 74 percent in 1979-80 to 76 percent in the 1981-82 school year. For Group A subject areas, Category 1 course enrollment increased three percent (from 54 to 57 percent) at the expense of all three categories of Group B subject area courses. For a moderately sized school, this shift in enrollments has the effect of altering by two the need for teachers certificated in Group A versus Group B subject areas.

Changes in course enrollments gave little evidence of schools improving in the degree to which they implemented Category 2 course offerings. The proportion of student course enrollments in Category 2 courses declined from 12 to 11 percent. And, while course enrollments in "Other" courses also declined from 14 to 13 percent, they still exceeded those for Category 2.

Singleton Courses

A singleton course is one for which student enrollment and/or teacher availability limits the number of class sections of that course to one. The changes observed in the number of singleton courses given, including those with enrollments of under 15 students, were indicative of school movement towards compliance with the basic core resolution. Both the number of singleton courses and the number of singleton courses with enrollments under 15 students increased for Category 1. This increase may reflect the offering of additional, newly required, Category 1 courses and/or the offering of these courses without resorting to the use of combination classes. For Category 2, the total number of singleton courses increased, while the number of those courses with enrollments under 15 decreased. Thus it appeared that, for the most part, schools gave the designated Category 2 courses when student enrollment reached 15. For "Other" courses, there was a small decrease in the number of singleton courses given. There was, however, a small increase in the number of singleton courses with enrollments under 15; and the number of these small classes equalled or exceeded those for Category 1 and Category 2. This again speaks to the relevance both schools and students place on "Other" MCPS Program of Studies courses in offering a complete school program of studies.

Student Course Selection

The ability of a school to offer and give the courses specified in the basic core resolution is somewhat dictated by the interests and abilities of the students it serves.

The achievement level of students appeared to affect their patterns of course selection. Approximately 200 eleventh grade students were selected at each of three achievement levels based on their composite score on the MCPS eleventh grade testing program. The average number of Group A courses taken was ten, eight, and six for the highest, average, and lowest achieving students, respectively. Even though all senior high schools had students achieving at all levels on the tests, the proportion of students at any one level differs among schools. Thus, the diversity of the student population served may well impact the implementation of the Basic Core of Course Offerings.

CHAPTER 5

IMPACT OF THE BASIC CORE RESOLUTION ON STAFFING

Although there were some changes in school staffings and in the percentage of part-time teachers employed, the adoption of the Basic Core of Course Offerings Resolution seems to have had little direct effect on school staffings and school staff use. Teachers appeared to be fully utilized and had assignments consistent with their job role during the 1981-82 school year.

School Staffing

Between the 1979-80 and 1981-82 school years, the decline in the number of teachers allocated to senior high schools exceeded, proportionately, the decline in student enrollment. This decline in staff is most probably attributable to the loss of the seven-period day. Yet, at a time when schools were asked to provide a more comprehensive program of offerings, they had fewer teachers than before. Also, the percentage of classroom teachers teaching part-time increased, although this increase appears to be unrelated to implementation of the basic core.

Teacher Use

For the seven selected senior high schools during the 1981-82 school year, regular classroom teachers, both full and part-time, were assigned only classroom teaching schedules. There were exceptions, but they were rare. Generally, for a school's entire teaching staff, the number of periods used for other than classroom instruction amounted to the equivalent of a half-time teacher.

The employment of part-time teachers varied considerably across schools, but there did not appear to be a relationship between their use and the degree to which the basic core was implemented. The percent of the teaching staff teaching part-time ranged from about 7 to over 20 percent in the seven selected senior high schools. About 75 percent the part-time teachers had assignments in Group A subject areas.

Teacher Load

The average class size for a subsample of regular classroom teachers was 23.3 which was under the average academic class size of 24.3 reported for the county for the 1981-82 school year. About 2 percent of the teachers, excluding teachers of band and physical education, had average class sizes which exceeded 30. The makeup of the classes, however, did provide some striking examples of teacher load in terms of teacher preparations. Teacher preparations were defined as the number of different courses students were enrolled in for the classes taught by a teacher. For a combination class, students would be enrolled in two or more courses, and each course was counted as a teacher preparation. Although 78 percent of the full-time regular classroom teachers had three or fewer preparations, 15 percent had four or five, and 7 percent had six or more different courses for which to prepare daily.

CHAPTER 6

IMPACT OF THE BASIC CORE RESOLUTION ON CLASS SIZE

Prior to the adoption of the Basic Core of Course Offerings Resolution, some concerns were expressed over the need for additional staff to effect its implementation. One assumption behind these concerns may have been that, given a fixed enrollment and a fixed and fully utilized staff, any increase in the number of courses and/or small classes given would result in increased class sizes in other courses.

For the seven selected schools, overall average class sizes remained essentially constant for the 1979-80 and 1981-82 school years. However, average class sizes increased for the Group A Category 1 and Category 2 subject area courses and decreased in all categories for the Group B subject area courses. The largest increase in average class size, from 22.2 to 23.6, was for the Group A Category 2 subject area courses. Even with this increase, the average class sizes for these courses were still below the 25.1 average class size for all Category 1 courses.

The lowest average class size, 15.0, was for the Group B Category 2 subject area courses. It was within this group of courses that senior high schools were most lacking in the giving of courses specified in the basic core. A continued thrust towards the provision of these courses may reduce average class sizes even further unless the number of class sections in "Other" courses are reduced.

Though not reported as affecting implementation of the Basic Core of Course Offerings resolution, a great deal of concern was expressed over Board of Education mandated maximum class sizes. The negative effects of adjusting classes, especially after the start of school, was viewed by principals as outweighing the benefits to be achieved from the slightly reduced class size. One suggestion from a high school principal was to use the average class size for each teacher, rather than the mandated maximum class sizes, as the guideline to trigger adjusting classes.

CHAPTER 7

IMPACT OF THE BASIC CORE RESOLUTION ON POLICIES AND PRACTICES

The Basic Core of Course Offerings Resolution appears to support senior high schools in their attempts to provide students a comprehensive program of studies. Previous policy decisions, such as the movement towards Grades 9-12 versus 10-12 senior high schools and the loss of the seven-period day, did not adversely affect implementation of the Basic Core of Course Offerings. In addition, no previously given directive to schools was cited by the seven selected schools as being in conflict with the Basic Core of Course Offerings Resolution.

System Review

The basic core resolution not only called for action by schools but also required system reviews pertaining to the remaining courses in the MCPS Program of Studies and to the program and fiscal implications of implementing the Basic Core. In the latter case, the documents reviewed and the interviews conducted for this study showed little evidence of fiscal problems resulting from the implementation of the basic core. In fact, schools reported the impact of the basic core resolution to be minimal. Schools did, however, exercise some latitude in the degree to which they implemented the core of courses. One other possible explanation for the absence of problems was that schools added core course offerings only to the extent that it didn't adversely affect other school program offerings or result in the need for additional staff beyond what they might reasonably expect to receive.

"Other" Course Review

The basic core resolution directed the superintendent to review the "Other" courses contained in the MCPS Program of Studies and recommend courses to be eliminated because they are no longer timely or are of a lesser value to students. Procedures and written guidelines were developed for this review process. The first review of the MCPS Program of Studies resulted in the elimination of 14 semester courses. Nonetheless, the Board of Education requested a further review of and consideration of the possible elimination of additional courses (Resolution No. 67-82, Adopted January 25, 1982). On August 23, 1982, 30 additional semester courses were dropped from the program of studies through course eliminations and consolidations.

Monitoring Implementation

The computer scheduling and report applications now capture much of the information necessary to monitor implementation of the Basic Core of Course Offerings. But little has been done to improve school scheduling practices or to make modifications in the system's capabilities to allow efficient monitoring of basic core implementation.

At the school level, the practices used for scheduling physical education classes, double or triple period classes, combination classes, and out-of-school courses result in ambiguous, if not misleading, data.

At the system level, even though the report card application was undergoing extensive revision during FY 82, little input was given to better enable monitoring of the basic core. The categorical status of courses was not incorporated into the data base, although allowances were made for it.

CHAPTER 8

IMPACT ON CLASS SIZE FROM CHANGING BASIC CORE OF COURSE OFFERINGS REQUIREMENTS

After the data for this study had been collected, the Board of Education adopted a resolution which had the effect of asking what would be the effect on average Group A course section sizes from changing Basic Core of Course Offerings requirements. Two changes -- one which would establish minimum class sizes for Group B, Categories 2 and 3 sections and the other which would reduce the proportion of Category 3 courses offered -- were suggested. The intent of both changes appears to be that, if more restrictive requirements were established for some groups or categories of the courses in the MCPS Program of Studies, freed teaching resources could be applied to other groups or categories of courses to reduce class size.

Establish Minimum Class Sizes

The first of the two changes would establish minimum class sizes for all sections of all courses included in Group B, Categories 2 and 3, and use any teaching resources which can be freed to decrease class size for all sections of Group A courses. Alternative minimum class sizes of 15, 20, and 25 were proposed in the Board resolution.

To analyze the effects of this action, data from the seven sample schools was combined. The basic methodology was to a) identify and eliminate all courses with enrollments under the proposed minimums, b) provide for the reenrollment of the displaced students into other course sections, and c) apply the freed teaching resources to the existing Group A course sections. For the primary analysis, the assumption was made that displaced students would reenroll in other Group B sections at an average section size equal to the established minimum enrollment requirement.

The analysis showed that the improvement in Group A average class size is 0.2 students (from 24.8 to 24.6) if the minimum is set at 15; 0.4 (from 24.8 to 24.4) if the minimum is 20; and 0.8 (from 24.8 to 24.0) if the minimum is 25. It should be noted that these figures represent a theoretical maximum improvement as they are based on the unlikely concepts that both students and teachers are interchangeable units among courses and schools.

Because the way in which the student reenrollment would actually take place could affect the eventual improvement in average Group A class sizes, two other reenrollment assumptions were tested. One assumed that students would reenroll in other Group B sections, but that the average section size would be 25 students regardless of the minimum class size. The other assumed that students would reenroll throughout all courses in the school (Group A and B) at the schoolwide average class size of 24.2. Under either alternate assumption, the improvement in average Group A class size was in the 0.3 to 0.8 range, about the same range as with the original assumption.

Although a theoretical improvement in average class size in the range of 0.2 to 0.8 students per section results from the analysis, this degree of improvement probably cannot be achieved. The actual reenrollment patterns of students, the certification and other limits on interchanging teachers, the inability to free any one teacher of all sections in a subject area, and the smaller numbers in each individual school compared to the seven sample schools combined will all serve to limit what can be achieved.

In addition, whatever class size improvement is achieved will come at a cost to students from the course eliminations. In individual schools, from one-third to one-half of all Group B course sections would be eliminated if the minimum class size were set at 25. Students who have a career interest in such fields as art, business, or a vocational trade would find it difficult to put together a three (10-12) or four (9-12) year program. It would be ironic if such limitations were placed on these students at the very time MCPS is proposing in the operating budget to reinstate the seven period day countywide in order to broaden the opportunities for students to take courses.

Reduce Proportion of Category 3 Courses

The second change proposed in the Board resolution stipulates that the total number of Category 3 courses be limited to a smaller proportion (than the current 15 percent) of the courses offered in the schools and that any teaching resources freed by this action be used to improve class sizes for Group A, Category 1 courses. The resolution does not specify what the change in proportion should be.

The analysis of the effects of this change is similar to the one used for the minimum class size. That is, a) the sections to be eliminated and their combined enrollment were identified, b) allocations were made for the

reenrollment of displaced students, and c) the resources freed were applied to the Group A, Category 1 sections. The major difference in this analysis is the need to assume a new proportion of Category 3 courses. The assumption used was to drop the proportion to 10 percent of the total sections offered, a one-third reduction. At that level of reduction, the resulting average class size for Group A, Category 1 sections would be 24.9, an improvement of 0.4 students per section over the existing average of 25.3.

Again, this is a theoretical improvement which probably cannot be achieved for the same reasons as listed earlier under "Minimum Class Sizes." However, in this case, students whose academic programs require specialized courses in such areas as foreign languages and the social sciences, which are offered as Group A, Category 3 sections, would be deprived of study opportunities along with the art, business, or vocational students.

CONCLUSION

Establishing minimum class sizes for certain groups of courses or reducing the proportion of Category 3 courses appears to have little positive impact on the average class size in schools. Based on the sample of seven schools, the theoretical maximum drop in class size is less than one student per section; and in all but one case is less than one-half student per section. Actual drops would probably be less. At the same time, the proposed actions would delete from one-third to one-half of the Group B, Categories 2 and 3 sections or one-third of all Category 3 sections. Given these results, it is hard to justify the imposition of course reductions through these new requirements for the basic core of courses.

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Chapter 1

BACKGROUND AND STUDY DESIGN

BACKGROUND

The Board of Education adopted the Basic Core of Course Offerings by Resolution 67-81 January 13, 1981. This resolution identified specific courses in the MCPS Program of Studies, required that they be offered to students in secondary schools, and set enrollment guidelines for giving the courses. The purposes of this action were to 1) assure that students in every high school had the designated courses available to them and 2) enhance the efficiency and effectiveness of countywide instructional programming.

The impetus for the Basic Core of Course Offerings came from the Senior High School Study (MCPS, June, 1978) recommendation that "there shall be a comprehensive program of instruction available to each student. Within that comprehensive program, there shall be a basic core of courses, each one of which will be offered in every high school." At its February 22, 1979, meeting the Board of Education asked the superintendent to prepare a list of course/program offerings that he would recommend to be offered at every high school. This list was transmitted to the Board of Education April 3, 1979, and was updated in a May 2, 1979, memorandum to the Board. The memorandum also showed the degree to which high schools were already meeting the offering requirements of the revised list of courses.

During the following school year, a committee dealt with the suggested list, the corresponding judgments as to which courses are "basic" to one's education, and the potential need for additional staffing if the plan were implemented. In September, 1980 the Board of Education received a revised "Recommended Core of Senior High School Courses," which separated courses into two levels: "A" courses which must be offered regardless of enrollment and "B" courses which must be offered if 15 or more students enroll. In November and December, 1980 proposed revisions to the Basic Core of Course Offerings were submitted to the Board of Education at its request.

The Board of Education adopted the Basic Core of Course Offerings January 13, 1981. Secondary school principals were notified of this action by a January 19, 1981, memorandum.

The Basic Core of Course Offerings Resolution adopted names specific courses for each of 19 subject areas. The basic core courses were given a categorical designation: Category 1--courses that shall be offered and given in each senior high school regardless of course enrollment[1]; and Category 2--courses that shall be offered and given when the enrollment in that course is 15 or more students. The MCPS Program of Study courses not listed in the basic core were identified as Category 3 or "Other" courses. For this study, in addition to the grouping of courses by subject area and category, the 19 subject areas were divided into two groups. Group A included six basic core subject areas: English language arts, reading, foreign languages, mathematics, science, and social studies, all with both Category 1 and 2 courses. Group B included

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[1] After the 1981-82 school year, when Category 1 classes are smaller than fifteen, they may be offered and given on alternate years or in combined classes.

multidisciplinary programs, visual art, music, theatre, cooperative vocational education, industrial education, industrial education/vocational programs, home economics, business education, career education, driver education, health education, and physical education. Six of these thirteen subject areas had only Category 1 courses and one had only Category 2 courses. (See Appendix A for the text of the Board resolution and the listing of the Basic Core of Course Offerings.)

The adopted resolution required that 1) the superintendent review periodically the remaining Program of Studies courses known as Category 3 and recommend to the Board which courses should be eliminated because they are no longer timely or are of lesser value to students and that 2) the Core of Courses be reviewed for its program and fiscal implications.

Subsequently, 14 courses were eliminated by the Board of Education on January 25, 1982; 22 on August 23, 1982; and through course consolidations on the same date, an additional 8 courses were eliminated. In May, 1982 the Department of Educational Accountability (DEA) was asked to evaluate "the impact of the Basic Core as we complete the first year of its implementation."

STUDY DESIGN

The aim of the DEA evaluation was to examine the impact of the Basic Core of Course Offerings as senior high schools completed the first year of its implementation.

Major Questions

The potential impacts of the implementation of the Basic Core of Course Offerings were translated into questions to guide the course of the study. These questions, along with the data sources to be used, were reviewed by staff of the Office for Instruction and Program Development. The major questions, as revised, follow:

1. To what extent is the Basic Core of Course Offerings implemented in all senior high schools?

2. To what degree were courses, now identified as Basic Core of Course Offerings, given by senior high schools prior to the passage of Board Resolution 67-81?

3. To what extent have course enrollments changed to reflect the priorities specified in the Basic Core of Course Offerings Resolution?

4. What was the impact of the Basic Core of Course Offerings on staffing?

5. What effect did the implementation of the Basic Core of Course Offerings have on class sizes?

6. What effect does the Basic Core of Course Offerings Resolution have on other system policies and practices or vice versa?

The subquestions for each of these major questions, along with the data sources that were to be used, are shown in Appendix B.

Approach

The resulting study and this report are descriptive in nature. Current practices are described in order to establish a benchmark from which future evaluations of the impact of the Basic Core of Course Offerings may be made. The study is also comparative to the degree that it addresses changes in practices between school years. No attempt is made to show a causal relationship between school practices and the adoption of the Basic Core of Courses Resolution.

Sample. All 22 senior high schools were included in the study; however, only seven of the high schools were selected for site visits and more in-depth analyses of data. The selection of the sample schools was based on these factors: administrative area, school size, grade levels served, loss of a seven-period day, and stability of enrollment between the 1979-80 and 1981-82 school years. Table 1.1 lists the senior high school sample and the reasons for selection.

Instruments. Only one data collection instrument was constructed for the study, a principal interview protocol. Questionnaire items in Part I addressed the questions posed in the study matrix and in Part II addressed questions on course offerings and staffing obtained from a preliminary review of the existing data for each school. (See Appendix C.)

Data Collection. Data for this study came from three sources: 1) existing documentation, 2) school site visits, and 3) unstandardized interviews.

1. Existing Documentation. The Distribution of Class Sizes reports, along with the other supporting reports, provided the basis for determining course offerings and enrollments. A listing of all documents used in this study is shown in the column "Source of Data" in Appendix B along with the subquestion to be answered.

2. School Site Visits. DEA staff visited each of the seven selected schools once between July 12, 1982, and July 20, 1982. The purpose of the visit was threefold: to conduct the interview with the principal and/or administrator responsible for scheduling, to obtain school documents relating to teacher class assignments and to student course offerings, and to verify data by comparing student enrollment shown on the Distribution of Class Sizes reports to the number of students listed in a random sample of teacher grade books.

3. Other Interviews. Numerous other Educational Services Center staff were interviewed for the purpose of clarifications of the Basic Core of Course Offerings and specific practices relating to course offerings and student enrollments.

Data Analysis. The majority of data reported here are simple counts reported as frequencies and manually computed percentages or proportions. To determine relationships between variables, the Spearman Rank Correlation Coefficient was used for the small seven-school sample, and the Pearson-Product-Moment Correlation was used for cases involving all 22 schools.

TABLE 1.1

Senior High School Sample With Reasons for Selection

School	Administrative Area	Reasons for Selection
Montgomery Blair High School	1	1. Large School 2. Stable enrollment since FY80 3. Received ninth grade in FY82 4. Six-period day in FY80
John F. Kennedy High School	1	1. Moderate size school 2. Increase in enrollment since FY80 3. Received ninth grade in FY82 4. Seven-period day in FY80
Rockville High School	2	1. Moderate size school 2. Stable enrollment since FY80 3. Had a ninth grade in FY80 4. Seven-period day in FY80
Charles W. Woodward High School	2	1. Small school 2. Increase in enrollment since FY80 3. Received ninth grade in FY82 4. Seven-period day in FY80
Winston Churchill High School	2	1. Large school 2. Decrease in enrollment since FY80 3. No ninth grade 4. Six-period day in FY80
Gaithersburg High School	3	1. Moderate size school 2. Stable enrollment since FY80 3. No ninth grade 4. Six-period day in FY80
Col. Zadok Magruder High School	3	1. Small to moderate size school 2. Decrease in enrollment since FY80 3. Had a ninth grade in FY80 4. Seven-period day in FY80

Chapter 2

EXTENT OF IMPLEMENTATION

The Basic Core of Course Offerings Resolution prescribed specific actions for senior high schools to take regarding the offering and giving of courses. The extent to which high schools implemented this policy directive is determined by the answers to the following questions: Were all basic core courses offered to students in each senior high school? Were course descriptions, showing each course's categorical status, available to students prior to registration? Were all Category 1 courses given? Were Category 2 courses given when enrollment reached 15?

To summarize these questions, a more general question is posed: To what extent is a comprehensive program, as defined by the Basic Core of Course Offerings, actually in place in each senior high?

MAJOR QUESTION

To what extent is the Basic Core of Course Offerings implemented in all senior high schools?

In addressing the questions listed above, the findings are presented by the basic core categories, by subject areas, and by subject area groups where English language arts, reading, foreign languages, mathematics, science, and social studies comprise Group A and all other disciplines, Group B. In determining courses offered, data from the seven-school sample were used. In determining courses given, all 22 senior high schools were included. Appendix D shows the number of courses in the Basic Core of Course Offerings by subject area and category.

Courses were counted as "given" or "given in combination only" according to the following rules:

- If all of the students in at least one class period were enrolled in the course, it was counted as "given."
- If the majority of students in at least one class period were enrolled in the course, it was counted as "given."
- If only a minority of students in one class period were enrolled in the course, it was counted as "given in combination only."

A course was counted as not given when no student was scheduled for instruction in that school (shown as enrolled for credit) for that course. The reason a course was not given could be simply that no students requested the course or for Category 2 courses that fewer than 15 students requested the course.

School Course Offerings

The Basic Core of Course Offerings, Category 1 and 2, requires high schools to offer 158 semester courses, (171 in 9-12 schools). Depending on the selection made from the list of alternative courses, the required number of course offerings could increase by as many as 5. A review of the seven-sample school course bulletins showed the median number of Category 1 and 2 courses not offered during the 1981-82 school year to be 9, approximately 5 percent of the total. One of the 7 schools offered 100 percent of the courses; others lacked from 4 to 22 courses. All courses were offered in 5 of the 19 subjects areas defined by the Basic Core Resolution. Those subject areas were English language arts, science, visual arts, home economics, and driver education. Industrial education and health education subject areas were where the most schools omitted at least one course in their course offering bulletins. Table 2.1 shows the number of seven selected senior high schools offering the Basic Core Courses with titles of courses not offered by subject area and category for the 1981-82 school year.

For the 1981-82 school year, all seven schools provided students with a course bulletin which gave course descriptions prior to registration. (Each school developed its own course bulletin; the MCPS Course Bulletin was first made available for registration for the 1982-83 school year.) An analysis of the school course bulletins showed that only two schools identified each course's categorical status as a part of the course description. Four additional schools identified basic core courses and their categorical status: one as a separate page of the course bulletin, two in addenda to the course bulletin, and one by giving each student a copy of the Basic Core of Course Offerings Resolution. One school did not identify course categorical status for their students.

TABLE 2.1

Number of Seven Selected Senior High Schools Offering the Basic Core of Courses
With Titles of Courses not Offered by Subject Area and Category for the 1981-82 School Year

	CATEGORY 1		CATEGORY 2	
Subject Area	Number of Schools Offering All Courses	Courses Not Offered (No. of Schools)	Number of Schools Offering All Courses	Courses Not Offered (No. of Schools)
English Language Arts	7 (100%)	----	7	----
Reading	5	Basic Reading (2)	6	Developmental Reading (1)
Foreign Languages	7	----	5	Spanish VI A & B (2) French VI A & B (2)
Mathematics	7	----	6	Algebra 2 with Trigonometry A & B (1)
Science	7	----	7	----
Social Studies	7	----	5	Russian History (1) Latin American History (2)[1]
Group A	5	Range: 0-1 Median: 0	2	Range: 0-4 Median: 2
Multidisciplinary	5	Executive High School Internship (2)	NA	----------
Visual Art	7	----	7	
Music	7	----	5	Concert/Symphony Orchestra A & B (2)
Theatre	7	----	6	Theatre II (1)
Cooperative Vocational Education	5	Work-Oriented Curriculum Program (1) Cooperative Work Experience II A & B (1)	NA	----------
Industrial Education	7	----	3	Research & Experimentation A & B (4) General Industrial Arts I A & B (3) Home Maintenance (4)
Industrial Education/ Vocational Programs	5	No Program (1) Auto Mechanics II A & B (1)	NA	----------
Home Economics	7	----	NA	----------
Business Education	7	----	6	Business Machines (1)
Career Education	4	Career Awareness, Decision Making, etc. (2) Internships (1)	NA	----------
Driver Education	NA	----------	7	----
Health Education	6	Family Life and Human Development (1)	2	Ninth Grade Health Elective (3) Human Behavior (2) Health Elective I (3)
Physical Education	6	Physical Education IA, IV A & B (1)	NA	----------
Group B	2	Range: 0-8 Median: 1	2	Range: 0-9 Median: 6
Basic Core	2	Range: 0-9 Median: 1	1	Range: 0-13 Median: 8

[1]Most frequently chosen alternative: schools did not offer 2 of 4 alternative courses.

NA indicates that no courses were listed in that category in the Basic Core of Course Offerings.

Basic Core of Course Offerings Given

Category 1. For the 1981-82 school year, schools were required to offer and give, without combination classes and depending on options selected , the 102-107 (112-117 in 9-12 schools) courses which comprise the Basic Core of Courses, Category 1. All subject areas, except driver education, had Category 1 courses.

No senior high school offered and gave that entire set of Category 1 courses. The number of courses not given ranged from 2 to 12 with the median being 7 which is about 7 percent of the Category 1 total. Three schools did give all Category 1 courses if combination classes are included.[1]

Of the 18 of 19 subject areas having Category 1 courses, only English language arts had all of that discipline's courses given in all senior high schools. In foreign languages, mathematics, science, industrial education, and business education, 90 percent or more of the senior high schools gave all courses. Cooperative vocational education, with its 8 to 10 course requirement, was the subject area least well implemented across schools. Table 2.2 shows the percentage of senior high schools giving the Basic Core of Courses - Category 1 by subject area for the 1981-82 school year.

Category 2. The Basic Core, Category 2, is comprised of 56 (59 in 9-12 schools) courses grouped into 13 of the 19 subject areas. Multidisciplinary programs, cooperative vocational education, industrial education/vocational programs, home economics, career education, and physical education were the six subject areas without Category 2 course offerings. In the 1981-82 school year, schools were required to give each course when the enrollment in that course was 15 or more students. Combination classes are permitted for Category 2 courses. Scheduling tally sheets showing the number of students registering for each course by school were not available as the schools were well into scheduling for the 1982-83 school year when the study was conducted. Therefore, comparisons between registrations and actual course offerings were not possible. The interviews conducted for the sample schools, however, addressed this question. For each Category 2 course not offered, schools were queried as to why. Without exception, the response was either, "We didn't offer it" or "It was offered but the course enrollment was well below 15." The number of Category 2 courses not given ranged from 14 to 37. The median was 22 or about 40 percent of the courses.

Driver Education, a one-course subject area, was given by all senior high schools. For industrial education, business education, and health education, no school gave the entire set of Category 2 courses specified for their respective disciplines. The percentage of senior high schools giving the Basic Core of Courses - Category 2 by subject area for the 1981-82 school year is shown in Table 2.3.

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[1] Physical Education courses were counted as given here. The data available were not sufficient to make an actual determination. (See Chapter 7.)

TABLE 2.2

Percentage of Senior High Schools Giving
the Basic Core of Courses - Category 1
by Subject Area for the 1981-82 School Year (N=22)

Subject Area	Percentage of Schools Giving Courses	
	Without Combination Classes	With Combination Classes
1. English Language Arts	100	100
2. Reading	73	77
3. Foreign Languages	91	100
4. Mathematics	91	91
5. Science	91	95
6. Social Studies	86	86
7. Multidisciplinary[1]	64	64
8. Visual Art	77	91
9. Music	68	91
10. Theatre	86	86
11. Coop. Voc. Education	14	45
12. Industrial Education	91	95
13. Ind. Ed./Voc. Program	68	73
14. Home Economics	86	91
15. Business Education	95	95
16. Career Education[2]	59	59
17. Driver Education	NA	-
18. Health Education	50	50
19. Physical Education[3]	X	-

[1]Offerings are administered from the ESC and do not require school staffing.

[2]This subject area has no Category 1 courses listed in the Basic Core of Course Offerings.

[3]Determination not possible due to school scheduling practices.

TABLE 2.3

Percentage of Senior High Schools Giving
the Basic Core of Courses - Category 2
by Subject Area for the 1981-82 School Year (N=22)[1]

Subject Area	Percentage of Schools Giving Courses	
	W/O Combination Classes	With Combination Classes
1. English Language Arts	64	68
2. Reading	86	91
3. Foreign Languages	5	9
4. Mathematics	82	82
5. Science	55	64
6. Social Studies	14	14
7. Multi Disciplinary[2]	NA	-
8. Visual Art	77	86
9. Music	41	50
10. Theatre	45	64
11. Coop. Voc. Education[2]	NA	-
12. Industrial Education	0	0
13. Ind. Ed./Voc. Programs[2]	NA	-
14. Home Economics[2]	NA	-
15. Business Education	0	0
16. Career Education[2]	NA	-
17. Driver Education	100	-
18. Health Education	0	0
19. Physical Education[2]	NA	-

[1]Basic Core Category 2 courses were only required to be given when the enrollment in that course reached 15 or more students.

[2]These subject areas have no Category 2 courses listed in the Basic Core of Course Offerings.

Comprehensiveness of School Programs

If the Basic Core of Course Offerings Resolution is considered to define a comprehensive senior high school program, and depending on options selected, 158-163 (171-176 in 9-12 schools) specific courses would have to be given to provide a comprehensive program. No senior high school gave the entire set of basic core courses, Category 1 and 2. The number of courses not given ranged from 14 to 42; the median was 27 or about 16 percent of the total number. Only for driver education, a subject area with one course, did all schools meet the basic core requirement. Home economics (91 percent), mathematics (77 percent), and visual art (77 percent) are the subject areas where schools came the next closest to giving all courses in both Category 1 and 2 of the Basic Core of Course Offerings. Table 2.4 shows the percentage of schools giving the basic core of Courses - Categories 1 and 2, by subject area for the 1981-82 school year. In Chapter 3, the relationship between the number of different courses given and school size is addressed.

ALTERNATIVE COURSES/PROGRAMS

In six of the 18 Category 1 basic core subject areas, schools could select a prescribed number of the listed courses or programs to meet the course offering requirement. Thus, schools could tailor their programs of study to their needs. The course selections made in the four subject areas where alternatives were available to fulfill the Category 1 basic core requirements are shown in Table 2.5.

Program alternatives were available in two areas: 1) cooperative vocational education with two program choices and 2) industrial education/vocational programs with 17 program choices. Courses for each program, except Air Conditioning and Refrigeration, were given by at least one school. Twelve schools did not give a complete program in Cooperative Vocational Education; six schools did not give the set of courses required to fulfill any of the seventeen industrial education/vocational programs.

COURSE BULLETINS

For the 1981-82 school year, each senior high school printed its own course bulletin. A review of seven course bulletins revealed discrepancies between the requirements of MCPS policy and individual school offerings. Examples found were:

- Course titles differed from that of the MCPS Program of Studies
- Course categorical status was in error
- Courses were offered on a yearly rather than semester basis

For the 1982-83 school year, the Office for Instruction and Program Development published a standard course bulletin to be used by all schools. All seven schools included in this study were uniformly in favor of the single MCPS Course Bulletin--if for no other reason than the cost savings it represents. The Senior High School Principals Association reviewed the Course Bulletin and suggested several revisions, most of which addressed ease of use. (See Appendix E.)

TABLE 2.4

Percentage of Senior High Schools Giving the Basic Core of Courses - Categories 1 and 2 by Subject Area for the 1981-82 School Year (N=22)

Subject Area	Percentage of Schools Giving Courses	
	Without Combination Classes	With Combination Classes
1. English Language Arts	64	68
2. Reading	64	72
3. Foreign Languages	5	9
4. Mathematics	77	77
5. Science	50	64
6. Social Studies	14	14
7. Multidisciplinary[1]	64	64
8. Visual Arts	59	77
9. Music	36	50
10. Theatre	45	64
11. Coop. Voc. Education[1]	14	45
12. Industrial Education	0	0
13. Ind. Ed./Voc. Program[1]	68	73
14. Home Economics[1]	86	91
15. Business Education	0	0
16. Career Education[1]	59	59
17. Driver Education[2]	100	-
18. Health Education	0	0
19. Physical Education[1/3]	-	-

[1]These subject areas have no Category 2 courses listed in the Basic Core of Course Offerings.

[2]This subject area has no Category 1 courses listed in the Basic Core of Course Offerings.

[3]Determination not possible due to school student scheduling practices (see Chapter 7).

TABLE 2.5

Number of Senior High Schools Giving Each Category 1 Alternative Course by Subject Area for the 1981-82 School Year (N=22)

Subject Area and Course	Number of Schools[1]	Subject Area and Course	Number of Schools Without/With Combination Classes	
Science		**Music**	**Without**	**With**
Biology 2	19	General Chorus	2	3
Chemistry 2	12	Chorus 1	11	14
Physics 2	4	Chorus II	5	13
Biology AP	4	No Alternative	6	1
Chemistry AP	2	Concert Band	16	18
Multiple Courses	16	Symphonic Band	14	15
No Alternative	1	No Alternative	3	1
Social Studies		**Home Economics**		
European History AP	14	Independent Living	9	10
U.S. History AP	11	Creative Foods	19	20
Both Courses	6	Creative Clothing	20	21
No Alternative	3	Personal and Family Living	5	6
		Housing and Interior Design	11	13

[1] Science and social studies alternative courses were not given in combination classes.

Six of the seven selected senior high schools used the MCPS Course Bulletin for course registration for the 1982-83 school year. Students were provided with individual school supplements to identify those courses available to them at their school. An analysis of those supplements to the MCPS bulletin and the one individual school course bulletin showed an increase in the median number of basic core courses not offered.[2] For Category 1, the median rose from one course not offered to two. However, the range decreased from zero-to-nine in 1981-82 to zero-to-five in 1982-83. For Category 2, both the median and the range of courses not offered increased.

Table 2.6 shows the range and median number of basic core courses not offered by the seven selected senior high schools by subject area group and category for the 1981-82 and 1982-83 school years.

TABLE 2.6

Range and Median Number of Basic Core Courses Not Offered by Seven Selected Senior High Schools by Subject Area Group and Category for the 1981-82 and 1982-83 School Years

		COURSES NOT OFFERED					
		Category 1		Category 2		Basic Core	
Subject Area Group	School Year	Range	Median	Range	Median	Range	Median
Group A: English, Reading, Foreign Languages, Science, Mathematics and Social Studies	1981-82	0- 1	0	0- 4	2	0- 5	2
	1982-83	0- 1	0	0- 7	5	0- 8	5
Group B: All other 13 Subject Areas	1981-82	0- 8	1	0- 9	6	0-17	9
	1982-83	0- 5	2	0-16	7	2-20	9
Total: Basic Core Subject Areas	1981-82	0- 9	1	0-13	8	0-22	9
	1982-83	0- 5	2	0-23	13	0-28	14

The median number of courses not offered rose from 9 in 1981-82 to 14 in 1982-83; this represents about 9 percent of the total number of offerings.

[2] For the 1982-83 school year and thereafter, the Basic Core of Course Offerings Resolution specifies that "when Category 1 classes are smaller than fifteen, they may be offered and given an alternate year...."

SUMMARY

The impact of the Board's Basic Core of Course Offerings Resolution on senior high school course offerings was reported as minimal by the schools surveyed. Although the passing of the resolution caused schools to reassess their course bulletins in a short time period, all felt that they were already substantially in compliance. In addition, schools reported that they were giving the basic core courses, although many were in combination classes. Where courses were not given, lack of student interest, i.e., low or nonexistent course enrollment, was the reason most frequently cited.

The data tend to support school verbal reports of substantial compliance with Basic Core of Course Offerings Resolution. The median number of courses not offered in school bulletins was nine or only about 5 percent of all the basic core courses based on the seven-school sample. For all 22 schools, the median number of basic core courses not given was 28 (17%); and for the required Category 1 courses, the median number not given was seven. However, not giving some courses and the use of combination classes for Category 1 courses were in direct opposition to the Board's Basic Core of Course Offerings Resolution. In addition, there was some slippage in school basic core course offerings for the 1982-83 school year.

The use of an MCPS Course Bulletin resolves many of the discrepancies found in titles, descriptions, and categorical status designations in course offerings. Its use does not, however, ensure that the Basic Core of Course Offerings will be offered to all MCPS students. Each school, through its supplements to the MCPS Course Bulletin, must omit course offerings as no school provides for all courses listed. Also in this publication, in an attempt to communicate more effectively to their students, schools altered course titles and redefined course descriptions.

Chapter 3

IMPACT OF THE BASIC CORE OF COURSE OFFERINGS RESOLUTION ON COURSE OFFERINGS

To identify changes that have occurred in school programs since the passage of the Basic Core of Course Offerings Resolution, comparisons of courses given by senior high schools between the 1979-80 and the 1981-82 school years were made. These comparisons are limited to the first semesters as these are the only data available for both school years. In addition, most of the courses in 1979-80 were year-long rather than semester courses; thus the course count is not the same as that reported in Chapter 2.

MAJOR QUESTION

To what degree were courses now identified as Basic Core of Course Offerings given by senior high schools prior to the passage of Board Resolution 67-81?

Prior Senior High School Implementation

Senior high schools, in the 1979-80 school year, gave about three-quarters of the courses now identified as basic core offerings. The degree to which offerings were given, however, varied considerably among schools. The number of courses not given ranged from a low of 15 (17%) to a high of 35 (41%); the median was 21 (24%). The courses now identified as Category 1 were given to a much larger degree. The median number of Category 1 courses not given was six, or about 10 percent of that set of courses. Table 3.1 shows the range and median number of basic core courses not given by senior high schools by subject area group and category for the 1979-80 school year.

As data were not available to make combination class determinations, a course was counted as given only if the majority of students in at least one class period were enrolled in the course. As a result, students may have received credit for courses counted here as not given; and school personnel may well claim that they did, in fact, give that course in combination with another course.

Number of Courses Given. The Basic Core of Course Offerings Resolution assigns priorities to courses in the MCPS Program of Studies. Category 1 courses are to be given by all schools. Courses in Category 2 are to be given if student enrollment reaches 15. The implication is that the rest of the courses in the MCPS Program of Studies ("Other") are to be given when sufficient resources and student interest are present, but not at the expense of basic core offerings. Has there been any noticeable trend in the number of different courses given by senior high schools in each of these course groupings? Table 3.2 shows the range and median number of courses given by senior high schools by category for the first semesters in the 1979-80 and 1981-82 school years. There has been a gain in the median number of Category 1 courses and a decrease in the median number of Category 2 and "Other" courses given since the Board resolution. The reduction in the number of "Other" courses may be attributable to the loss of the seven-period day or to the greater emphasis placed on Category 1 and 2 in the Basic Core of Course Offerings. There remained, however, a wide discrepancy among schools in the number of different courses they gave.

TABLE 3.1

Range and Median Number of Basic Core Courses Not Given by Senior High Schools by Subject Area Group and Category for the 1979-80 School Year (N=22)

Subject Area Groups	Number of Courses Not Given								
	Category 1			Category 2			Basic Core		
	Range	Median No.	%	Range	Median No.	%	Range	Median No.	%
(Number of Courses)[1]		(30)			(13)			(43)	
Group A: English, Reading Foreign Language, Mathematics, Science, Social Studies	0-7	2	7	2-9	5	38	4-16	6	14
(Number of Courses)[1]		(25)			(18)			(43)	
Group B: All other courses	3-8	4	15	5-12	10	53	9-19	14	33
(Number of Courses)[1]		(55)			(31)			(86)	
Total	3-14	6	10	10-21	14	45	15-35	21	24

[1]The number of courses includes year-long courses and semester courses which are typically given during the first semester.

TABLE 3.2

Range and Median Number of Courses Given by Senior High Schools by Category for the First Semester of the 1979-80 and 1981-82 School Years (N=22)

Course Category	Number of Courses Given[1]			
	1981-82 School Year		1979-80 School Year	
	Range	Median	Range	Median
Category 1	40- 56	48	35- 55	46
Category 2	10- 26	19	9- 22	20
Other	13- 42	30	10- 45	35
All Courses	65-112	97	54-113	101

[1]Industrial education/vocational programs, multidisciplinary programs and physical education courses are not included. Comparisons are limited to first semester offerings as these are the only data available for both school years.

The following analysis of courses given by subject area group and category reveals the impact that rather small shifts in the numbers of courses given had on the degree to which the Basic Core of Course Offerings Resolution was implemented.

Impact on Subject Areas

Group A. The total number of different courses given across schools, for Group A (English, reading, foreign languages, mathematics, science, and social studies) was slightly higher in 1981-82 than in 1979-80, averaging less than one additional course per school. In Category 1 there were a few more courses given in English, reading, and social studies by individual schools as they sought to give the required offerings. In Category 2, the number of courses given increased slightly, primarily due to Algebra 2 with Trigonometry, a new course introduced and given by most schools. In "Other," the number of courses decreased, about one per school, with social studies showing the largest drop in courses given.

The net result of these shifts in the numbers of courses given on the degree of implementation of the required Category 1 Group A offerings by subject area is as follows:

1. Foreign Languages, Mathematics, and Science. No change; high degree of implementation of all courses both prior to, and after, the adoption of the Basic Core of Course Offerings Resolution.

2. English Language Arts. Improvement in the number of schools giving all required courses. Ten schools were lacking the English Advanced Placement and/or Speech 1A course in 1979-80; none were lacking either in 1981-82. In meeting the English Advanced Placement course offering, however, one school volunteered that it just retitled an English honors course as English Advanced Placement.

3. Reading. Improvement; although five schools did not give the course Basic Reading in 1981-82, thirteen did not give it in 1979-80.

4. Social Studies. Improvement; ten schools did not offer all required courses in 1979-80 in that most lacked a U.S. History Advanced Placement or European History Advanced Placement course. That number was reduced to three for the 1981-82 school year.

Group B. Thirteen subject areas comprise Group B: visual art; music; theatre; cooperative vocational education; home economics; business; career; driver and health education; multidisciplinary programs; industrial education/vocational programs; and physical education. The latter three subject areas have not been included in course counts because of the unique scheduling practices used by some schools. (See Chapter 7, Changes Needed in Present Reporting/Analysis Procedures and Products.)

The number of courses given in Group B decreased from the 1979-80 to the 1981-82 school year, averaging about three fewer courses per school. The number of courses given over the two-school-year periods remained stable for Category 1, dropped slightly in Category 2, and dropped approximately two

courses per school for "Other." These small shifts in the number of courses among categories primarily affected five subject areas. For visual art, music, industrial education, and business education, one less course, usually from the "Other" category, was given. Cooperative vocational education increased in number of courses offered—one in Category 1 and one in "Other." A Work-Oriented Curriculum on-the-job training course was usually the added Category 1 offering, and health occupations was the "Other" course most frequency added.

Impact on Courses Given

Have any Category 2 or "Other" courses, which were previously widely given, been affected by implementation of the Basic Core of Course Offerings? All of the Category 2 courses that were given by a majority of the schools during the 1979-80 school year were retained by most schools in 1981-82.

The same finding held for "Other" (Non-Basic Core) courses. No course given by a majority of the schools during the 1979-80 school year was dropped by all schools in the 1981-82 school year.

The schools surveyed did not attribute the changes that occurred in courses given to the adoption of the basic core. Rather, they saw the changes as resulting from the direction the senior high schools were already taking and from students' increased interest in taking more difficult courses.

SCHOOL SIZE

Is there a relationship between school size and the number of different courses given students? Even when supplemental staffing for small schools is considered, the larger a school, the more courses it gives its students. The correlation coefficient is smaller, but still statistically significant ($p < .01$), when only the required Category 1 courses and school enrollment are correlated. Table 3.3 shows the correlation coefficients between the number of courses given and school enrollment by category for senior high schools for the 1981-82 school year.

TABLE 3.3

Correlation Coefficients Between Number of Courses Given and School Enrollment by Category for Senior High Schools for the 1981-82 School Year (N=22)

Category	School Enrollment
Category 1	0.53
Category 2	0.74
Other	0.62
All Courses	0.78

The average numbers of courses given[1] were 88 for small schools (enrollments under 1200 students), 98 for moderate-sized schools (enrollments between 1200 and 1500 students), and 107 for large schools (enrollments over 1500).

SUMMARY

Senior high schools gave more of the courses now identified as basic core after the adoption of the resolution than before. During the 1979-80 school year, schools gave about 75 percent of these courses; whereas for the 1981-82 school years that percentage was 85.

More Category 1 courses, fewer Category 3 courses, and an increase in the minimum number of courses given by any one school were in evidence during the 1981-82 school year.

The median number of Category 1 courses given increased by two from 46 in 1979-80 to 48 in the 1981-82 school year. This small increase resulted in an improvement in the degree to which the basic core was implemented in three subject areas: English language arts, reading, and social studies.

Several schools also added an additional cooperative vocational education course, but that did not substantially affect the number of schools giving all of the courses for that subject area.

Little or no improvement was evidenced in Category 2 course offerings. But, as many of these courses are routinely given in combination classes, the available data were insufficient to warrant a general conclusion.

The median number of "Other" courses given decreased by five from 35 to 30 between the two school years. Social studies, visual art, music, industrial education, and business education were the subject areas most affected. No specific course that was popular in 1979-80 was eliminated from the 1981-82 offering.

The minimum number of courses given by any one school during the first semester increased from 54 in 1979-80 to 65 for the 1981-82 school year. However, there were still large differences among schools in the number of courses they gave. A statistically significant relationship was obtained between school size (student enrollment) and the number of different courses given; generally the larger the school, the more courses were given. This was true even for the required Category 1 courses.

The schools surveyed did not attribute the changes that occurred in courses given to the adoption of the basic core. Rather, they saw the changes as resulting from the direction the senior high schools were already taking and from students' increased interest in taking more difficult courses.

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[1] The average number of courses given was rounded to the nearest whole number. Industrial education/vocational programs, multidisciplinary programs, and physical education courses were not included in the course count.

Chapter 4

IMPACT OF THE BASIC CORE OF COURSE OFFERINGS RESOLUTION ON COURSE ENROLLMENT

Chapter 3 showed a move toward greater implementation of the Basic Core of Course Offerings from the 1979-80 to the 1981-82 school year. The median number of basic core courses not given by senior high schools was reduced from 24 to 17 percent. In addition, there was a reduction in the number of different courses given from the "Other" category. Did student course enrollments follow this trend?

MAJOR QUESTION

To what extent have course enrollments changed to reflect course priority as specified in the Basic Core of Course Offerings Resolution?

To answer this question, course enrollments for seven schools have been tallied for the 1979-80 and 1981-82 school years. Table 4.1 shows the percentage of course enrollments for the seven selected senior high schools by subject area group and category for those years. The percentage of all course enrollments has increased slightly for Category 1 courses and decreased slightly for Category 2 and "Other" courses.

The increase in the percentage of enrollments in Category 1 was in Group A courses at the expense of those in Group B. Overall, the course enrollments demonstrate a shift of 3 percent from Group B to Group A. An enrollment change of this magnitude is significant since it changes by two the number of teachers needed in the two subject area groups. A hypothetical example follows:

EXAMPLE:

Given

School Enrollment: 1500 Course Enrollments: 8,750
Number of Teachers: 70 Average Teacher Load: 125

Percentage of Course Enrollments		No. of Teachers Needed	Change
Group B			
From:	33 (.33 X 8750/125)	23.1	-2.1
To:	30 (.30 X 8750/125)	21.0	
Group A			
From:	67 (.67 X 8750/125)	46.9	+2.1
To:	70 (.70 X 8750/125)	49.0	

All Group A subject areas, except reading, showed small but positive changes in their proportion of course enrollments from 1979-80 to the 1981-82 school year. Four of the 13 Group B subject areas--visual art, industrial education, home economics, and business education--showed decreases of about 1 percent in their proportions of course enrollments. Cooperative vocational education and physical education showed enrollment increases of about 1 percent. Appendix F shows the percentage of first semester student course enrollments for seven selected senior high schools by subject area and category for the 1979-80 and 1981-82 school years.

TABLE 4.2

Percentage of Course Enrollments for Seven Selected Senior High Schools by Subject Area Group and Category for the 1979-80 and 1981-82 School Years

Subject Area Group	School Year	Category 1	Category 2	Other	Total
		Percentage			
Group A: English, Reading, Foreign Languages, Mathematics, Science, and Social Studies	1979-80	54	7	6	67
	1981-82	57	7	6	70
Group B: All Other 13 Subject Areas	1979-80	20	5	8	33
	1981-82	19	4	7	30
All Subject Areas	1979-80	74	12	14	100
	1981-82	76	11	13	100

Percentages were rounded to the nearest whole number.

Singleton Course Offerings

A singleton course is one for which student enrollment and/or teacher availability limits the number of sections of that course in a school to one. Changes in the number and enrollments for singleton courses are evident from course enrollment data from seven selected senior high schools for the 1979-80 and 1981-82 school years. Table 4.2 shows the number of singleton courses and the number with enrollments below 15 by subject area group and category. The number of Category 1 singleton courses increased 15 percent, with a 68 percent increase in those with enrollments under 15. For Category 2 courses, the number of singleton offerings increased, but the number with enrollments under 15 decreased. Both outcomes were inkeeping with the results expected from implementation of the Basic Core of Course Offerings Resolution.

The Basic Core of Course Offerings Resolution did not provide enrollment guidelines for "Other" course offerings. However, the implicit expectation was for a decrease in the number of "Other" singleton courses with enrollments under 15 as staff resources were used for the higher priority Category 1 and 2 courses. That didn't happen. The reasons stated by school personnel for giving "Other" courses with low enrollments were: 1) they were trying to build or maintain a program which they felt would grow and 2) the availability of staff through scheduling quirks. If student enrollment is shifting from Group B to Group A courses and little change is made in the proportions of staff certificated for various subject areas, schools may be able to staff these "Other" small courses. However, such staffing would have the effect of raising Group A class sizes. (See Chapter 6 for Class Size Impact.)

Student Course Selection

Although a school may offer a comprehensive program of courses, there must be sufficient student interests and abilities in all areas to warrant giving all those courses. Teachers can influence student course selection, but student goals and their parents' desires may lean in another direction. Student academic achievement is one factor that may play a role in the implementation of the comprehensive program spelled out in the Basic Core Resolution. Although all senior high schools have a wide range of student achievement levels, the proportion of the students at the different levels varies across schools.

To determine the course selection patterns of students of varying achievement levels, the courses taken by 600 eleventh grade students were analyzed for the 1981-82 school year. Approximately 200 students were selected at each of three achievement levels based on their composite test score on the MCPS eleventh grade testing program. The achievement strata used were the following:

The highest achieving students in MCPS
Students achieving at the MCPS median
The lowest achieving students (who completed the test battery)

TABLE 4.2

Number of Singleton Courses for Seven Selected Senior High Schools by Subject Area Group and Basic Core Category for the 1979-80 and 1981-82 School Years

Subject Area Group	School Year	Category 1 No.	Category 1 No. Under 15	Category 2 No.	Category 2 No. Under 15	Other No.	Other No. Under 15	Total No.	Total No. Under 15
Group A: English, Reading, Foreign Languages, Mathematics, Science, and Social Studies	1979-80	45	7	43	14	41	10	129	31
	1981-82	56	6	41	8	36	10	133	24
Group B: All Other 13 Subject Areas	1979-80	99	15	22	12	107	25	228	52
	1981-82	110	31	36	8	95	28	241	67
All Subject Areas	1979-80	144	22	65	26	148	35	357	83
	1981-82	166	37	77	16	131	38	374	91

There was a marked difference in course selection among the three groups. The average number of Group A courses taken was ten, eight, and six, for the highest, average, and lowest achieving groups, respectively. The typical pattern of course selection for a high achieving student was eight semester courses covering English, mathematics, science and social studies, two semesters of foreign languages, and two semesters of band or chorus or two one-semester courses from physical education, noncredit assignment, and driver education. In contrast, the typical pattern for a low achieving student was six semester courses in English, mathematics, science, and social studies; two semesters of physical education, or one physical education and one driver education; and four cooperative vocational education courses or two courses from each of two other subject areas, e.g., home economics, business education, industrial education and visual art, or from noncredit assignment courses. Table 4.3 shows the average number of semester courses taken by selected eleventh grade students by subject area group and student achievement level for the 1981-82 school year.

TABLE 4.3

Average Number of Semester Courses Taken by Selected Eleventh Grade Students by Subject Area Group and Student Achievement Level for the 1981-82 School Year

Subject Area Group	Average Number of Semester Courses[1]		
	Highest Achievers	Average Achievers	Low Achievers
Group A: English, Reading, Foreign Languages, Mathematics, Science, and Social Studies	10	8	6
Group B: All Other 13 Subject Areas	2	4	6
All Subject Areas	12	12	12

[1]Rounded to the nearest whole number.

Appendix G shows the percentage of students enrolled in one or more courses by subject area and performance level on the MCPS eleventh grade countywide testing program for the 1981-82 school year.

SUMMARY

The data on student course enrollments support the earlier contention of a move toward greater implementation of the Basic Core of Course Offerings Resolution from the 1979-80 to the 1981-82 school year. For the seven selected senior high schools, student enrollments in Group A, Category 1 courses increased by 3 percent from 54 to 57. Though the percentage of enrollments in Group B, Category 1 courses decreased by one, there was an increase in the number of singleton course offerings from 99 to 110, including those with enrollments below 15. This increase may reflect the offering of additional required Category 1 courses and/or the offering of these courses without resorting to the use of combination classes.

For Category 2 courses, the percentage of student enrollments was low for both Groups A and B and declined even further from 12 to 11. In fact, student enrollments in "Other" (non-Basic Core) courses exceeded that of Category 2. However, the number of singleton classes with enrollments under 15 declined from 26 to 16; and the number of Group B singleton courses increased from 65 to 77. Both of these events may be viewed as supporting the resolution's aims.

The ability of a school to offer and give the courses specified in the resolution is somewhat dictated by the interests and abilities of the students it serves. Student ability or, more specifically, student performance on the countywide tests affected course selection. The higher the performance on those tests, the more courses elected from the Group A subject areas. Even though all senior high schools had students achieving at all levels on the tests, the proportion of students at any one level differs among schools. Thus the diversity of the student population served may well impact on the degree of implementation of the Basic Core of Course Offerings.

Chapter 5

IMPACT OF THE BASIC CORE OF COURSE OFFERINGS RESOLUTION ON STAFFING

The decline in enrollment experienced in MCPS from the 1979-80 to the 1981-82 school year was not as severe for the senior high schools as for the county as a whole. Although overall enrollment decreased 7 percent, the decrease at the high school level was 3 percent because the full impact of the declining birthrates of the early 70s will not hit the secondary schools for another few years. The movement of more grades to high schools also helped to cushion the effects of declining enrollments.

Allocation of regular classroom teachers to schools is determined by a formula based on school enrollment, with adjustments for the grade levels in a school and the number of periods in the school day. Adjustments to regular classroom teacher allocations are also made for small schools (25 FTEs in FY 82) and to achieve maximum class size guidelines (33.2 FTEs in FY 82). There was no small school staff allocation in FY 80. In FY 82, only one school had a seven-period day, whereas 13 did in FY 80.

MAJOR QUESTION

What was the impact of the Basic Core of Course Offerings on staffing?

In the first year of implementation of the Basic Core of Course Offerings, school staffs were smaller than they were in the 1979-80 school year, even when adjustments for the enrollment decreases are made. The student-staff ratio for A-D teachers rose from 19.1-to-1 to 20.1-to-1. Although the increased student-staff ratio may be attributable to the loss of the seven-period day, schools were asked to offer a more comprehensive program of courses with fewer staff. Table 5.1 shows the numbers of senior high school professional staff members and student-staff ratios by staff position for the 1979-80 and 1981-82 school years.

To determine the impact of the Basic Core of Course Offerings at the school staffing level, staffing allocations and staff assignments were analyzed for seven selected senior high schools.

Teacher Allocations

The A-D teacher position classification includes not only teachers whose primary responsibility is teaching students in basic core courses but also teachers assigned to meet the special needs of students. The latter group may have few, if any, regular instructional class period assignments.

Where has the reduction in teachers been most pronounced? Table 5.2 shows that overall teacher allocations for regular course instruction have not only accounted for the entire loss in teaching staff but also have subsidized the small improvements made in counselor and media specialist staffing. As a result, the student-teacher ratio increase between the two school years is even greater than it would have been if all groups shared the impact of the budget cuts. The student-teacher ratio for the first teacher group, which is predominantly classroom teachers, increased from 20.0- to 21.6-to-one.

TABLE 5.1

Number of Senior High School Professional Staff Members and Student-Staff Ratios by Staff Position for the 1979-80 and 1981-82 School Years (N=22)

Professional Staff Position	1981-82 School Year Number of Staff[1]	1981-82 School Year Student/Staff Ratio	1979-80 School Year Number of Staff[1]	1979-80 School Year Student/Staff Ratio
(Student Enrollment)	(30,143)		(31,121)	
Administrator	71.0	424.5 to 1	75.0	414.9 to 1
Teacher (A-D)	1498.5	20.1 to 1	1633.1	19.1 to 1
Counselor/Media Specialist	145.5	207.2 to 1	145.0	214.6 to 1
Total professional Staff	1715.0	17.6 to 1	1853.1	16.8 to 1

[1]Actual positions in full-time equivalents (FTE's).

TABLE 5.2

Number of Teachers by Position Classification for Seven Selected Senior High Schools for the 1979-80 and 1981-82 School Years.

Teacher Classification	1979-80 School Year Number of Teachers	1979-80 School Year Student Teacher Ratio	1981-82 School Year Number of Teachers	1981-82 School Year Student Teacher Ratio	Change Number (decrease)	Change Ratio
(Student Enrollment)	(10065)		(10099)			
Classroom, Resource, WOC, and Athletic Director	503.1	20.0 to 1	467.4	21.6 to 1	(35.7)	1.6
Reading, Alternative, Level 3, and ESOL	23.9	421.1 to 1	26.0	388.4 to 1	2.1	(32.7)
Counselor/Media Specialist	46.5	216.5 to 1	49.5	204.0 to 1	3.0	(12.5)
Total A-D Teachers	573.5	17.6 to 1	542.9	18.6 to 1	(30.6)	1.0

STAFFING ADJUSTMENTS

The seven sample senior high schools were queried to determine what, if any, adjustments were necessary in teachers' schedules and in general staff use to implement the Basic Core of Course Offerings. Few school administrators cited any necessity to make adjustments in staff use in order to give the basic core courses. This response may reflect the feeling of the school staff that they were already providing these courses. Two adjustments in staff were mentioned by one school each: 1) the use of part-time staff and 2) the number of different courses taught by a single teacher.

Part-time Teachers

The proportion of teachers in schools on a part-time basis has increased from FY 80 to FY 82. Although the number of these part-time staff members has remained fairly constant for both school years, the number of full-time positions decreased. Assuming the average part-time teacher to be half-time, these teachers constituted approximately 9 percent of the teaching staff in FY 80 and 11 percent in FY 82.

The use of part-time classroom teachers varies considerably among schools. In the seven selected senior high schools, the proportion of part-time teachers ranged from about 7 percent of the teaching staff to over 20 percent. Approximately 75 percent of the part-time teachers were used in Group A subject areas. The largest number of part-time teachers were in foreign languages, followed by English, mathematics, social studies, and science. The two sample senior high schools (one large and one small) with the largest numbers of part-time teachers had the largest deficits in meeting the Category 1 course offerings.

The advantage of using part-time teachers was reported to be in the increased number of teaching periods. Two half-time teachers, each teaching three classes, could cover six classes, whereas one full-time teacher could only cover five. Although the schools were not able to realize three class periods for each half-time teacher (they averaged 2.7 classes), this still represents an increase in the number of classes taught by two part-time teachers (5.4) over that expected from one full-time teacher (5.0).

Teacher Preparations

Offering a wider range of courses affects classroom teacher assignments and may increase the number of different courses they teach. Although comparative data for 1979-80 were not available, over three hundred full-time regular classroom teachers' class assignments in seven selected senior high schools were analyzed to describe the practices for the 1981-82 school year. Teacher preparations are defined here as the number of different courses students were enrolled in for the classes taught by that teacher. For a combination class, students were enrolled in two or more courses; and each course was counted as a teacher preparation.

Based on the seven selected schools, 63 percent of the classroom teachers had two or three preparations. Of the remaining 37 percent of classroom teachers, 15 percent had one preparation, 15 percent had four or five, and 7 percent had six or more preparations.

Table 5.3 shows the percentage of teachers by subject area and number of teacher preparations for seven selected senior high schools for the 1981-82 school year.

TABLE 5.3

Percentage of Teachers by Subject Area and Number of Teacher Preparations for Seven Selected Schools for the 1981-82 School Year

Subject Area	Number of Teacher Preparations			
	1	2 or 3	4 or 5	6 or more
	(Percentage)	(Percentage)	(Percentage)	(Percentage)
Group A:				
English	30	65	5	0
Foreign Languages	4	57	31	8
Mathematics	0	91	9	0
Science	30	70	0	0
Social Studies	20	76	4	0
Group A Subject Areas	19%	73%	7%	1%
Group B:[1]				
Visual Art, Music, Home Economics, and Cooperative Vocational, Industrial, Health and Business Education	6	35	35	24
All Subject Areas	15%	63%	15%	7%

[1]The number of teachers was too few to show a breakout by subject area; there were no full-time regular classroom teachers with major assignments of theatre and career education; driver and physical education and industrial education/vocational programs teachers were not included due to scheduling practices; multidisciplinary programs do not require school staffing.

Foreign language is the only instance where a teacher of Group A courses had six or more preparations. For Group B courses, only 6 percent of the teachers had just one preparation, and 24 percent had six or more preparations.

Teacher Assignments

The teaching assignments of the same 300 teachers used to determine teacher preparations, plus part-time teachers in the seven selected senior high schools, were reviewed for examples of classroom teacher use for duties other than instruction in regular courses.

In the vast majority of cases, regular classroom teachers have full teaching schedules, i.e., students enrolled in courses are assigned to a full-time teacher for five class periods. In four of the seven schools, a few classroom teachers had six teaching periods. There were also examples of regular full- or part-time teachers not having a full teaching schedule. These cases were rare; and for an entire school's teaching staff, they amounted to the equivalent of a half-time teacher. In some instances, half-time teachers had less than three teaching periods; and in one case, a half-time teacher position was used to coordinate students in internship programs. Examples of other nonteaching assignments included released periods for team planning, cafeteria, school store, gifted coordinator, counseling, and the math lab.

Teacher-Average Class Sizes

Average class size in MCPS is usually reported in terms of subject disciplines. For this study, average class sizes by teacher, i.e., the number of students enrolled in the courses taught by a teacher divided by the number of class periods a teacher is assigned to teach, were calculated using a subsample of the teachers from the sample schools. Teacher average class size was found to be 22.7.[1] Table 5.4 shows the average number of teaching periods and students and average class size by teacher classification for the 1981-82 school year.

In addition to determining the average class size for teachers, this analysis revealed the extent to which some teachers were burdened by rather large class sizes. Eight instances were found where teacher average class sizes exceeded 30, excluding teachers of band and physical education. This represents about 2 percent of 400 teacher assignments checked.

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[1] In this subsample, the number of students shown in the Distribution of Class Sizes report was compared to the number of students listed in teacher grade books. For the 65 randomly selected teachers, few discrepancies of over one or two students between the two sources were found. Except for the time lapse between a student class change and the computer processing of the drop/add form, the data base seemed to reflect actual class period enrollments.

TABLE 5.4

Average Number of Teaching Periods and Students and Average Class Size by Teacher Classification for Seven Selected Senior High Schools for the 1981-82 School Year

Teacher Classification	Number	AVERAGE NUMBER		Average Class Size
		Teaching Periods	Students	
Classroom	51[2]	5.1	120	23.3
Resource	6	3.3	87	26.1
Alternative/ Reading	8	3.6	57	15.6
All Teachers	65	4.8	108	22.7

[2]Adjusted to full-time equivalences for computations (FTE's=47.5).

SUMMARY

Although there were some changes in school staffings and in the percentage of part-time teachers employed, the adoption of the Basic Core of Course Offerings Resolution seems to have had little direct effect on school staffings and school staff use. Teachers appeared to be fully utilized and had assignments consistent with their job roles during the 1981-82 school year.

The decline in the number of teachers allocated to senior high schools exceeded, proportionately, the decline in student enrollment from the 1979-80 to the 1981-82 school year. As a result, the student-teacher ratio rose from 19.1- to 20.1-to-1. This decline in staff is most probably attributable to the loss of the seven-period day. Yet, at a time when schools were asked to provide a more comprehensive program of offerings, they had fewer teachers than before. Also, the percentage of classroom teachers teaching part-time increased. This use, as reported by schools, was not directly related to implementation of the Basic Core but for increased class coverage.

For the seven selected senior high schools during the 1981-82 school year, regular classroom teachers, both full- and part-time, were assigned full teaching schedules. There were exceptions, but they were rare. Generally, for a school's entire teaching staff, about three periods were used for other than classroom instruction which amounts to the class coverage expected of a half-time teacher. The employment of part-time teachers varied considerably across these schools, but there did not appear to be a relationship between their use and the degree to which the basic core was implemented. The percentage of the teaching staff teaching part-time ranged from about 7 percent to over 20 percent with about three-fourths of the part-time teachers having assignments in Group A subject areas.

The average class size for regular classroom teachers was 23.3 which is under the average academic class size of 24.3 reported for the county that year. About 2 percent of the teachers, excluding teachers of band and physical education, had average class sizes which exceeded 30. The makeup of the classes, however, did provide some striking examples of teacher load in terms of teacher preparations. Teacher preparations were defined as the number of different courses students were enrolled in for the classes taught by a teacher. For a combination class, students would be enrolled in two or more courses, and each course was counted as a teacher preparation. Although 78 percent of the full-time regular classroom teachers had three or fewer preparations, 15 percent had four or five, and 7 percent had six or more different courses to prepare daily.

Chapter 6

IMPACT OF THE BASIC CORE OF COURSE OFFERINGS RESOLUTION ON CLASS SIZE

The Basic Core of Course Offerings Resolution requires senior high schools to give all Category 1 courses regardless of enrollment without resorting to the use of combination classes. Any Category 2 course is to be given when enrollment is 15 or more students. Given a fixed enrollment and a fixed and fully utilized staff, any increase in the number of courses or in the number of small classes given by a school will increase class sizes in other courses.

MAJOR QUESTION

What effect did the implementation of the Basic Core of Course Offerings have on class size?

Average class sizes were computed for the seven senior high sample schools for the 1979-80 and 1981-82 school years to determine what changes, if any, had occurred. Table 6.1 shows the average class sizes for seven selected senior high schools by subject area group and category for the 1979-80 and 1981-82 school years.

TABLE 6.1

Average Class Sizes for Seven Selected Senior High Schools by Subject Area Group and Basic Core Category for the 1979-80 and 1981-82 School Years

Subject Area Group	School Year	Category 1	Category 2	Other	All Courses
Group A: English, Reading, Foreign Languages, Mathematics, Science, Social Studies	1979-80	25.1	22.2	23.3	24.6
	1981-82	25.3	23.6	22.1	24.8
Group B: All Other 13 Subject Areas, except Physical Education	1979-80	25.1	15.8	21.7	21.8
	1981-82	24.1	15.0	19.8	20.4
All Subject Areas (Except Physical Education)	1979-80	25.1	19.0	22.4	23.7
	1981-82	25.1	19.4	20.9	23.6

The average class sizes for the Category 1 and 2 courses remained essentially constant for the two years. The average class size for "Other" courses decreased by one and one-half students. Group B subject areas showed declines in average class sizes in all categories. Appendix H shows the average class sizes for seven selected senior high schools by subject area and category for the 1979-80 and 1981-82 school years. Changes in average class sizes of over two students were evidenced for music, theatre, industrial education/vocational programs, career education, and health education.

Maximum Class Sizes

Senior high schools are directed to try to limit enrollments in a class period to a maximum of 28 students in English and 32 students in elective language arts, foreign languages, mathematics, science, and social studies courses. These mandated maximum class sizes are closely monitored by educational services center staff, and additional classroom teacher positions (33.2 FTE's in FY 82) are budgeted to achieve the maximum class size guideline. The general consensus of the seven senior high schools visited was that mandated maximum class sizes had little effect on their ability to implement the Basic Core of Courses. Whenever a course is given with an enrollment below the schools' average class size, it increases other class sizes. Where major problems occurred, however, additional staffing was available.

Nevertheless, a great deal of concern was expressed by school personnel about mandated maximum class sizes. The staff time spent to juggle student schedules was considered excessive; splitting singleton offerings of specialized courses was seen as unrealistic; flexibility in staffing assignments was reduced; staffing allocations were received late even though course enrollments, in the eyes of the school staff, clearly indicated the need for additional staff; and when additional staffings were received after classes began, teachers and students, having established rapport, resisted attempts at change. One suggestion put forth was to use the average class size for each teacher rather than the mandated class sizes as the guideline for adjusting class sizes. If that were the case in English, for example, no adjustments in classes would be made if a single class exceeded 28 unless that teacher's average class size also exceeded 28 students.

SUMMARY

For the seven selected senior high schools, overall average class sizes remained essentially constant for the 1979-80 and 1981-82 school years. However, average class sizes increased for the Group A Category 1 and Category 2 subject area courses and decreased in all categories for the Group B subject area courses. The largest increase in average class size, from 22.2 to 23.6, was for the Group A Category 2 subject area courses. Even with this increase, the average class sizes for these courses were still below the 25.1 average class size for all Category 1 courses.

The lowest average class of 15.0 was for the Group B Category 2 subject area courses. It was within this group of courses that senior high schools were most lacking in the giving of courses specified in the basic core. A continued thrust towards the provision of these courses may reduce average class sizes even further unless the number of class sections in "Other" courses are reduced.

Though not reported as affecting implementation of the Basic Core of Course Offerings Resolution, a great deal of concern was expressed by some principals over Board of Education mandated maximum class sizes. The negative effects of adjusting classes, especially after the start of school, was viewed as outweighing the benefits to be achieved from the slightly reduced class size.

Chapter 7

IMPACT OF THE BASIC CORE OF COURSE OFFERINGS RESOLUTION ON POLICIES AND PRACTICES

Many things have affected the senior high school program of course offerings during the time period covered by this study. The effects of enrollment declines were stop-gapped by the movement toward Grade 9-12 versus 10-12 senior highs. The seven-period day gave way to the six-period day. Considerable attention was given to maximum class sizes.

At the county level, the Board of Education adopted the Senior High School Policy and attempted to streamline the MCPS Program of Studies. Emphasis has been placed on each school offering and giving a basic comprehensive program.

MAJOR QUESTION

What effect does the Basic Core of Course Offerings Resolution have on other system policies and practices or vice versa?

Addition of Grade 9

Three of the seven sample senior high schools had a ninth grade for the first time in the 1981-82 school year, the first year of implementation of the Basic Core of Course Offerings Resolution. Two other sample schools had received a ninth grade earlier. The reports from these schools indicate that the movement toward 9-12 senior high school does not present any problems in the implementation of the basic core. The Basic Core of Course Offerings identifies 9 ninth-grade semester courses: 6 in Category 1 and 3 in Category 2. All senior high schools with ninth grades gave all of the Category 1 courses. The degree to which the Category 2 courses were given was less. About two-thirds of schools with ninth grades gave the course Exploring Business Careers. There were only 32 students in the entire county enrolled in the ninth grade health elective course, and only two of the five schools with ninth grades whose course bulletins were analyzed even offered the course.

Six-Period Day

The general consensus of staff interviewed in the seven sample senior high schools is that the basic core courses can be implemented with a six-period day. A seven-period day was seen as helpful by allowing for more flexibility in student scheduling and adding more staff resources. However, it was not considered necessary.

The loss of the seven-period day by four of these schools was seen as affecting some elective courses, especially in the smallest school. One school reported dropping biology advanced placement because the two-period lab requirement was not a feasible alternative for students within a six-period day.

The data reported earlier supports the contention that electives were the big loser in moving from a seven- to a six-period day. Course enrollments in Group B courses dropped 3 percent (33 to 30) from the 1979-80 to the 1981-82 school year. As these data are for seven schools, only four of which had the seven-period day, the drop may have been greater for those losing the seven-period day.

Basic Core Resolution

Generally senior high schools reported the impact of the Basic Core of Course Offerings Resolution as minimal and not adversely affecting any earlier policies or directives with the possible exception of the one requiring a duty free lunch. If anything, the resolution was seen as supportive of and in the same direction as efforts already taken by senior high schools.

PROGRAM OF STUDIES

The Basic Core of Course Offerings Resolution not only identifies and sets priorities for specific courses, but it also calls for 1) a periodic review by the superintendent of the remaining courses in the MCPS Program of Studies, 2) an elimination by the Board of courses which are no longer timely or are of a lesser value to students, and 3) a review of the Basic Core of Courses Offerings for its program and fiscal implications.

Other Course Review

The superintendent, through the Office for Instruction and Program Development, is responsible for recommending course deletions to the Board of Education. Guidelines have been developed for this periodic review. The factors to be considered in the addition or deletion of courses are 1) federal, state, and local mandates; 2) course use; 3) student specialization; 4) teacher specialization; 5) overlap; and 6) timeliness. The process used in identifying courses for elimination includes subject area coordinators' reviews of their courses using the guidelines and Council on Instruction recommendations. The materials submitted to the Board of Education on December 21, 1981, (Appendix I) describe the outcome of the first periodic review and include the Guidelines for Review of Secondary Courses. The action taken by the Board of Education on the superintendent's recommended course deletions, Resolution 67-82, is shown in Appendix J. Fourteen courses were eliminated from the MCPS Program of Studies.

Changes Needed in Present Reporting/Analysis Procedures and Products

The data base created by the computer report card application is the best available source for monitoring actual student course selections, enrollments, and teacher assignments/utilization. However, the data base was not created for monitoring purposes; and its use in this study required an enormous amount of data verification and manual calculations. The problems encountered are reviewed here to suggest modifications which are necessary if better monitoring of the Basic Core of Course Offerings implementation is wanted in the future:

Physical Education Scheduling. Several schools 1) schedule students to one or two teachers, thereby showing enormous class sizes and unused teacher positions; 2) schedule all students into one or two physical education courses, thereby showing no student enrollments in other required physical education courses; and/or 3) some combination of the above. This situation also occurs with on-the-job training courses.

Double Period Courses. Several schools use the code "00" to designate the class period for double or triple period classes. This masks the number of periods a teacher teaches as well as the periods in which students take courses.

Out-of-School Courses. There is apparently no convention for accounting for students enrolled in courses in other schools or sites. Schools use the proper course code in scheduling students but make seemingly arbitrary staff assignments. The resulting data base shows schools giving courses that they are not; and various staff, including counselors and registrars, as teaching very small classes. In addition, students enrolled in one school but taking a course in another are not shown in the receiving school's student count for that class.

Combination Classes. Extensive use is made of combination classes in Group B subject areas and in Foreign Languages; i.e., where students in the same teacher class period are enrolled in more than one course. Since most reports based on these data show enrollments by course, the picture that emerges is distorted. Teachers are shown with two or more different class assignments for the same period in some instances. The Distribution of Class Sizes report partially resolves the problem by showing total teacher class period enrollment in terms of only one course--the one with the largest enrollment for that class period. This, however, then masks the giving of some courses to students.

Application Status. Extensive revision has been made to the report card application during FY 82. Little consideration was given during this revision process to monitoring the Basic Core of Course Offerings. Although provisions have been made to incorporate course categorical status into the data base, the development work group has not been provided with the basic information necessary to identify course categorical status.

Course Codes. The course code numbers used to identify courses in the MCPS Program of Studies are in need of revision. The logic of the numbering system is all but destroyed by the changes made since its conception. Considerations are 1) the logic of course numbers within subject disciplines; 2) the placement of semester course linking numbers in the course code structure; and 3) the current use being made of course codes below 1,000, those from 8,000 to 8,999, and those 9,000 and over.

SUMMARY

The Basic Core of Course Offerings Resolution appears to support senior high schools in their attempts to provide students with a comprehensive program of studies. Previous policy decisions, such as movement towards Grade 9-12 versus 10-12 senior high schools and loss of the seven-period day, did not adversely affect implementation of the Basic Core of Course Offerings Resolution. In addition, no previously given directive to schools was reported by the seven selected senior high schools as being in conflict with the Basic Core of Course Offerings Resolution.

The resolution not only called for action by schools but also required system reviews pertaining to the remaining courses in the MCPS Program of Studies and to the program and fiscal implications of implementing the basic core. In the latter case, the documents reviewed and the interviews conducted for this study showed little evidence of fiscal problems resulting from the implementation of the resolution. In fact, schools reported the impact of the basic core resolution to be minimal. Schools did, however, exercise some latitude in the degree to which they implemented the core of courses. One other possible explanation for the absence of problems was that schools added core course offerings only to the extent that it didn't adversely affect other school program offerings or result in the need for additional staff beyond what they might reasonably expect to receive.

The basic core resolution directed the superintendent to review the "Other" courses contained in the MCPS Program of Studies and recommend those courses which will be eliminated because they are no longer timely or are of a lesser value to students. Procedures and written guidelines were developed for this review process. The first review of the MCPS Program of Studies resulted in the elimination of 14 semester courses. Nonetheless, the Board of Education requested a further review of and consideration of the possible elimination of additional courses (Resolution No. 67-82, Adopted January 25, 1982). On August 23, 1982, thirty additional semester courses were eliminated from the MCPS Program of Studies.

The computer scheduling and report applications now capture much of the information necessary to monitor implementation of the Basic Core of Course Offerings. But little has been done to improve school scheduling practices or to make modifications in the system's capabilities to allow efficient monitoring of basic core implementation.

At the school level, the practices used for scheduling physical education classes, double or triple period classes, combination classes, and out-of-school courses result in ambiguous, if not misleading, data.

At the system level, even though the report card application was undergoing extensive revision during FY 82, little input was given to better enable monitoring of the basic core. The categorical status of courses was not incorporated into the data base, although allowances were made for it.

Chapter 8

IMPACT ON CLASS SIZE FROM CHANGING BASIC CORE OF COURSE OFFERINGS REQUIREMENTS

After the data for this study had been collected and during the writing of the report, the Board of Education adopted on November 22, 1982, Resolution Number 818-82, High School Courses, which required, among other things, that the superintendent do the following:

- "Make recommendations to the Board establishing alternative minimum class sizes of 15, 20, and 25 for all nonacademic courses and evaluate these alternatives"

- "Consider limiting the proportion of Category 3 courses offered and scheduled so that staffing (student/teacher ratios) can be improved in academic courses (Category 1)"

The analyses on which recommendations for these two items can be based requires the type of detailed course and enrollment data already collected from the seven sample high schools for earlier parts of this report. Therefore, the Department of Educational Accountability was asked to expand the report and include the results of the analyses.

In order to restate the Board resolution in terms of study questions which can be addressed using the collected data, the following assumptions were made:

- Academic courses means the same thing as Group A courses, i.e. English language arts, reading, foreign languages, mathematics, science, and social studies.

- Nonacademic courses means the same as Group B courses, i.e. all other subject areas.

- Category 1, Group B courses are mandated under the Basic Core resolution regardless of class size (at least in alternate years) and should, therefore, be excluded from any new minimum class size requirements and from these analyses.

The data used in these analyses are summarized on Table 8.1, "Number of Class Sections by Class Size, Subject Area Group, and Category for Seven Schools." (As explained in Chapter 7, physical education and driver education are not included in these data because of unique scheduling practices which confound the information available.)

Table 8.1

Number of Class Sections by Class Size,
Subject Area Group and Category for Seven Schools

Subject Area Group	Class Sections with Enrollments:	Number of Class Sections			
		Category 1	Category 2	Other (Category 3)	Total
Group A. English language arts, reading foreign language, mathematics, science, social studies	Under 15	44	24	14	82
	15 - 19	137	26	29	192
	20 - 24	296	33	41	370
	25 and over	780	83	61	925
	Total	1,257	166	145	1,568
	(Enrollment)	(31,744)	(3,925)	(3,284)	(38,953)
Group B. All other subject areas except physical education and driver education[1]	Under 15	50	10	32	92
	15 - 19	43	17	47	107
	20 - 24	54	25	52	131
	25 and over	114	19	44	177
	Total	261	71	175	507
	(Enrollment)	(6,324)	(1,477)	(3,582)	(11,383)
Total. All subject areas except physical education and driver education	Under 15	94	34	46	174
	15 - 19	180	43	76	299
	20 - 24	350	58	93	501
	25 and over	894	102	105	1,101
	Total	1,518	237	320	2,076
	(Enrollment)	(38,068)	(5,402)	(6,866)	(50,336)

Class Sizes	Group B: Category 2		Group B: Other	
	No. Class Sections	Enrollment	No. Class Sections	Enrollment
Under 15	10	105	32	328
15 - 19	17	299	47	786
20 - 24	25	549	52	1159
25 and over	19	524	44	1309
Total	71	1477	175	3582

[1] As explained in Chapter 7, physical education and driver education are not included because of unique scheduling practices which confound the information available.

MAJOR QUESTION

What would be the effect on average Group A course section sizes from changing Basic Core of Course Offerings requirements?

The intent of both parts of the Board resolution appears to be that, if more restrictive requirements were established for courses in some groups or categories of the Basic Core of Course Offerings, freed teaching resources could be applied to other groups or categories of courses to reduce class size. To analyze the potential effects of such actions requires looking at each part of the Board resolution separately.

ESTABLISH MINIMUM CLASS SIZES

The first of the two parts of the resolution would establish minimum class sizes for all sections of all courses included in Group B, Categories 2 and 3, and use any teaching resources which can be freed to decrease class size for all sections of all Group A courses. To analyze the effects of this action in the seven sample schools combined, a) all courses with an enrollment under the proposed minimums were identified and eliminated; b) theoretical provisions were made for reenrolling the displaced students in other course sections; and c) the freed teaching resources were applied to the existing Group A course sections.

Table 8.2 shows the results of this analysis. The improvement in Group A average class size is 0.2 (from 24.8 to 24.6) if the minimum is set at 15; 0.4 (from 24.8 to 24.4) if the minimum is 20; and 0.8 (from 24.8 to 24.0) if the minimum is 25. It should be noted that these figures represent a theoretical maximum improvement. It is doubtful, for reasons which will be explained in a later section, that this maximum improvement can be attained. The following sections present the methodology of the analysis, alternative assumptions, and some additional considerations.

Methodology

As was noted above, the analysis is designed to determine the theoretical maximum improvement in class size. Therefore, both students and teachers are treated here as though they were interchangeable units among courses and schools. That this is not so is addressed in the following section. The column on Table 8.2 which establishes a minimum enrollment of 15 can be used as an example of the methodology employed for this analysis. For the seven schools, the number of existing sections with enrollments under 15 (42 sections) and the combined enrollment of these sections (433 students) are first divided to determine the existing class size for the sections (10.3 students per section).

If the 42 sections were eliminated, the 433 students would have to reenroll in some other sections. How this reenrollment will actually take place could affect the eventual improvement in average Group A class sizes. Therefore, several assumptions were tested, as follows:

Assumption 1: Students will reenroll in other Group B sections at an average section size equal to the established minimum enrollment requirement.

The assumption here is that a) since students have wanted these courses in the past, they will continue to want them or related courses in the same subject areas; b) there are some opportunities to combine sections and take other scheduling steps to offer a partial set of these eliminated courses; and c) schools will comply with only the established minimum in reenrolling students. Therefore, on Table 8.2 a reenrollment size of 15 is used in the column which establishes a minimum class size of 15. (By the same reasoning, 20 is used for the column with a minimum enrollment of 20, and 25 is used for the column with a minimum enrollment of 25.)

Assumption 2: Students will reenroll in other Group B sections, but at an average section size equal to 25 students per section

The assumption here is still that students will try to remain in the same subject areas from which sections were eliminated, but that schools will be forced to carry out the reenrollment at an average class size of 25, close to the average class size for all Group A sections combined. If this assumption were accepted, 25 would be used on Table 8.2 in all three columns in place of the variable 15, 20, and 25.

Assumption 3: Students will reenroll throughout all courses in the school (Group A and B) at the schoolwide average class size of 24.2

The assumption here is that, when sections are eliminated, students will reenroll in other subject areas throughout the total school offerings. This assumption approximates the situation of totally random reenrollment.

Because the testing of these three assumptions against the available data and scheduling possibilities in the seven schools shows that Assumption 1 is most likely to predict the actual results, it is used in these analyses. However, the effect on the improvement in average Group A class size from the other sets of assumptions is noted later in the text for comparison purposes.

Returning to the example in the "15" column of Table 8.2, if the average level of enrollment of 15 were accomplished, it would require 29 sections and increase average class size in these Group B sections by 4.7 students from 10.3 for the eliminated sections to 15 for the reenrolled sections. Since 42 sections were eliminated as under enrolled, and 29 sections are needed for the students involved, 13 sections are now freed. That is, the equivalent of 13 teaching periods can be reassigned to Group A sections in order to reduce average class sizes there.

At present there are 1,568 Group A course sections in the seven high schools, with a combined enrollment of 38,953 and an average class size of 24.8 students per section. Eighty percent of these sections are Group A, Category 1 courses. If the teaching periods freed by the elimination of small Group B, Categories 2 and 3 sections (13) were assigned to the Group A sections, 1,581 sections would be available for the same enrollment (38,953). Therefore, the revised average class size for Group A sections would become 24.6 students per section. The resulting improvement in average class size is 0.2 students per section. By similar calculations, the improvement is shown on Table 8.2 to be 0.4 if the minimum is established at 20, and 0.8 if the minimum is 25.

Table 8.2

Effect on Average Group A Class Sizes from Establishing Minimum Class Sizes for Group B, Categories 2 and 3 Sections in Seven High Schools Combined

	Minimum Class Size Established		
	15	20	25
Number of Group B, Category 2 Sections eliminated	10	27	52
Number of Group B, Category 3 sections eliminated	32	79	131
Total number of sections eliminated	42	106	183
Total enrollment in eliminated sections	433	1,518	3,226
Average class size of eliminated sections	10.3	14.3	17.6
Number of sections required to reenroll students at established minimum class size 1/	29	76	129
Number of sections freed for reassignment of teaching periods	13	30	54
Number of existing Group A, Category 1 Sections	1,257	1,257	1,257
Number of existing Group A, Category 2 Sections	166	166	166
Number of existing Group A, Category 3 Sections	145	145	145
Total number of Group A Sections	1,568	1,568	1,568
Total enrollment in existing Group A Sections	38,953	38,953	38,953
Average class size in existing Group A Sections	24.8	24.8	24.
Number of Group A Sections after reassignment	1,581	1,598	1,622
Average class size after reassignment	24.6	24.4	24.0
Improvement in average Group A class size	0.2	0.4	0.8

1/ The assumption used in these analyses is that students from eliminated sections would be reenrolled at an average section size no greater than the minimum class size requirement established, i.e. 15, 20, or 25. As discussed in the text, even if an alternate assumption is made regarding the pattern of enrollments in which the average size of the reformed classes is assumed to be 25, the improvement in average Group A class size remains in the 0.3 to 0.8 range.

If Assumption 2 were used for these analyses, and the students from the eliminated sections were reenrolled at an average section size of 25, the number of required sections would be 17 when the minimum required enrollment is set at 15; 61 when the minimum is set at 20; and the same 129 when the minimum is set at 25. These requirements free 25, 45, and 54 sections, respectively, for reassignment of teaching periods to Group A classes. By the same method of calculation as shown above, the resulting average Group A class sizes would become 24.5, 24.1, and 24.0, respectively. Thus, the improvement in average class size is 0.3 when a minimum of 15 is established; 0.7 when a minimum of 20 is established; and 0.8 when a minimum of 25 is established.

If Assumption 3 were used for these analyses, and the students from the eliminated sections were reenrolled throughout the school at an average section size of 24.2, the calculation methodology changes slightly. Instead of the Group A enrollment staying constant, it increases by the number of students who reenroll from Group B to Group A courses. At the same time, the number of teaching periods available for Group A increases by both a) the number of freed sections and b) the required reenrollment sections which shift over to Group A with those students. The resulting average Group A class sizes are 24.5 for an improvement of 0.3 when the minimum is set at 15; 24.2 for an improvement of 0.6 when the minimum is 20; and 24.1 for an improvement of 0.7 when the minimum is 25.

It is important to note that the range of improvement to average Group A class size will remain between 0.2 and 0.8 no matter which assumptions are made as to the reenrollment behavior of the students involved. This is true because the number of students displaced by the eliminated sections when minimum class sizes are established is small in comparison to the total enrollment of the seven schools. Therefore, regardless of redistribution, the impact will also be small.

Other Considerations

Although an average class size improvement in the range of 0.2 to 0.8 students per section results from the analysis, the improvement is achieved by treating students and teachers as interchangeable and aggregating the numbers across seven schools. In fact, this degree of improvement probably cannot be achieved because of the following considerations which go beyond the theoretical analysis outlined above:

- The number of Group B, Categories 2 and 3 course sections shown above will not actually be freed by the establishment of a minimum class size. What is more likely to happen is that some students from one eliminated section will reenroll in another small section in the same subject area, bringing the latter section above the minimum and preventing its elimination. (Some provision for this phenomenon is made in the analysis by using Assumption 1 and establishing the reenrollment size at the minimum required size.)

- As is the case with the existing core of course requirements, a few smaller sections will continue to be necessary somewhere in the school (e.g. some lab and shop facilities can handle only a small number of students at one time), thereby requiring an exception to the minimum and freeing fewer teaching periods for reassignment to Group A sections.

- Because of certification and other factors, teachers cannot be reassigned to other subject areas. Freeing one teaching period of an arts teacher, for example, does not permit adding one teaching period of an English teacher. Unless five sections in the same subject area were eliminated, one teacher could not be transferred out and another brought in to teach in an alternate subject field. The study data reveal few cases where five sections, all in the same subject area and in the same school, would be eliminated.

- The smaller student and teacher numbers involved for an individual school provide even less flexibility for reassignments than do the aggregate numbers for the seven schools combined.

Whether or not the theoretical improvement in Group A average class size can be achieved, another consideration is the cost to students of what is eliminated. In individual schools, from one-third to one-half of all the Group B course sections would be eliminated if the minimum class size were set at 25. Since most of the remaining Group B sections would include first year and basic courses in the various subject areas, students who have a career interest in such fields as art, business, or a vocational trade would find it difficult to put together a three (10-12) or four (9-12) year program. It would be ironic if such limitations were placed on these students at the very time MCPS is proposing in the operating budget to reinstate the seven period day countywide in order to broaden the opportunities for students to take courses.

A final consideration which should be noted is that changes of the type analyzed here have no effect on the operating budget. Because existing teaching periods are redistributed, with no increase or decrease in total high school teaching resources, there are no fiscal savings.

Given all of these considerations, the concept stipulating tighter minimum enrollments for Category 2 and 3 courses appears to do more damage than good.

REDUCE PROPORTION OF CATEGORY 3 COURSES

The second part of the Board resolution stipulates that the total number of Category 3 courses be limited to a smaller proportion (than currently) of the courses offered in the schools and that any teaching resources freed by this action be used to improve class sizes for Group A, Category 1 courses. The resolution does not specify what the change in proportion should be. In the seven sample schools, the proportion of Category 3 sections to all sections now averages 15 percent.

The analysis of the effects of this part of the resolution was similar to the one used for the minimum class size part outlined above. That is, a) the sections to be eliminated and their combined enrollment were identified, b) allocations were made for the reenrollment of displaced students, and c) the resources freed were applied to the Group A, Category 1 sections. The major difference in this analysis is the need to assume a new "proportion of Category 3 courses" since one was not stipulated. The proportion of Category 3 course sections was assumed to drop to 10 percent of the total sections offered. This change represents a one-third reduction in offerings.

Table 8.3 summarizes the analysis. It shows that, if the proportion of Category 3 sections in the seven schools combined were dropped from 15 to 10 percent of all sections, the resulting class size for Group A, Category 1 sections would be 24.9, an improvement of 0.4 students per section. Again, it should be noted that this is a theoretical maximum improvement which probably cannot be achieved in practice.

Methodology

The methodology for this analysis parallels the earlier one. For the seven high schools combined, the number of existing sections in Group A, Category 3 (145) and Group B, Category 3 (175) were identified. The total of 320 sections was then compared to the number of sections given in the seven schools (2,076) to calculate the existing proportion of Category 3 sections, which is 15 percent. The proportion was then reduced to 10 percent, resulting in the elimination of 112 sections.

Since in this analysis the specific sections to be deleted to reach the new proportion cannot be determined as there are no established guidelines for the reduction, the exact number of students displaced also cannot be determined. Therefore, the combined enrollment of the 320 original Category 3 sections (6,866 students) was reduced in proportion to the reduction in sections. The result is 2,403 students who must be reenrolled.

The existing average Category 3 section size is 21.5 students. In order to free any resources for reassignment, the displaced students would have to be reenrolled elsewhere at a higher average. Therefore, 25 students per section was used. Because no variations of minimum class size are involved, and because the earlier testing of alternative reenrollment assumptions showed little change in outcomes, no alternatives are included here. The 25 student level of reenrollment requires 96 sections somewhere in the school. Since 112 sections were eliminated, 16 sections are available for reassignment of teaching periods.

There are 1,257 existing Group A, Category 1 sections in the seven high schools combined, with an enrollment of 31,744 students and an average class size of 25.3. If the 16 additional teaching periods are added to this group, the average size drops to 24.9. The improvement in Group A, Category 1 average class size is, therefore, 0.4 students.

Other Considerations

The theoretical improvement shown on Table 8.3 probably cannot be achieved for the same reasons as listed earlier under "Minimum Class Sizes." That is, the actual reenrollment patterns of students, the limits on interchanging teachers, the inability to free any one teacher of all sections, and the smaller numbers in the individual schools will all serve to limit what can be achieved.

As was stated previously, the loss of opportunities for students will also be a factor to be evaluated. Again, students with career interests in the arts, business, or industrial arts will find it harder to accomplish their high school programs. In this case, however, there is an added dimension to the opportunities lost. Since Group A, Category 3 sections are involved in the reductions, students whose academic programs require specialized courses in such fields as foreign languages or the social sciences will also be deprived.

Table 8.3

Effect on Average Group A, Category 1 Class Sizes from Reducing the Proportion of Category 3 Sections in Seven High Schools Combined

Number of existing Group A, Category 3 Sections	145
Number of existing Group B, Category 3 Sections	175
Total number of existing Category 3 Sections	320
Total enrollment in Category 3 Sections	6,866
Existing average Category 3 class size	21.5
Total number of sections in seven high schools	2,076
Existing proportion of Category 3 Sections	15%
Number of Category 3 Sections if proportion reduced to 10 percent	208
Total enrollment in reduced number of Category 3 Sections	4,463
Number of Category 3 Sections freed	112
Number of students to be reenrolled from eliminated sections	2,403
Number of sections required to reenroll students at average class size of 25	96
Number of sections freed for reassignment of teaching periods	16
Number of existing Group A, Category 1 Sections	1,257
Total enrollment in existing Group A, Category 1 Sections	31,744
Average Group A, Category 1 class size	25.3
Number of Group A, Category 1 Sections after reassignment	1,273
Average class size after reassignment	24.9
Improvement in average Group A, Category 1 class size	0.4

SUMMARY

Establishing minimum class sizes for certain groups of courses or reducing the proportion of Category 3 courses appears to have little positive impact on the average class size in schools. Based on the sample of seven schools, the theoretical maximum drop in class size is less than one student per section; and in all but one case is less than one-half student per section. Actual drops in average class size would probably be less.

On the other hand, the data show that from one-third to one-half of the Group B, Categories 2 and 3 sections or one-third of all Category 3 sections would be eliminated in each school by these proposed actions. This degree of loss would severely impact the high school program for many students with career interests in the affected subject areas. Given these results, it is hard to justify the imposition of course reductions through these new requirements for the basic core of courses.

APPENDICES

APPENDIX A

Office of the Deputy Superintendent of Schools
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

January 19, 1981

MEMORANDUM

To: All Secondary Principals

From: Harry Pitt, Deputy Superintendent of Schools

Refer Questions: Paschal J. Emma, Special Assistant to the Deputy Superintendent for Senior High Policy (279-3474)

Subject: The Basic Core of Course Offerings

On January 13, 1981, the Board of Education adopted the Basic Core of Course Offerings. Attached is a copy of the resolution and the Basic Core of Courses as adopted. Please refer to these when preparing your 1981-1982 course offering bulletin, noting particularly the fifth and sixth resolves, as it will be necessary to include all Category 1 and 2 courses in the bulletin under the appropriate designation.

Principals are reminded that all courses in Category 1 must be offered and given during the 1981-1982 school year. Subsequent to next year, Category 1 courses may be offered and given in alternate years if enrollment falls below fifteen. As always, you may wish to combine levels of courses (e.g., Spanish V and VI) to accommodate your staffing needs.

Schools must use the proper course code numbers when scheduling students (e.g., students entering their third year of physical education would be enrolled in Physical Education III A 7704 and III B 7724). Follow-up meetings to elaborate on Board Resolution 67-81 will be scheduled in each administrative area.

HP:hc

Attachment

Copy to:
Administrative Team
Area Directors for Educational Services
Area Supervisors, Secondary Instruction
Department of Instructional Planning & Development

The Basic Core of Course Offerings

Text of Board Resolution 67-81, adopted January 13, 1981:

WHEREAS, A Policy Statement on the Senior High School states "there shall be a comprehensive program of instruction available to each student. Within that comprehensive program there shall be a basic core of courses, each one of which will be offered in every high school"; now therefore be it

Resolved, That the Basic Core of Courses be comprised of two categories, 1 and 2; and be it further

Resolved, That all courses in Category 1 shall be offered and given in each senior high school regardless of course enrollment except as provided in the next resolve below; and be it further

Resolved, That after the 1981-1982 school year, when Category 1 classes are smaller than fifteen, they may be offered and given on alternate years or in combined classes; and be it further

Resolved, That all courses in Category 2 shall be offered and given in a senior high school when the enrollment in that course is fifteen or more students; however, if budget and staffing permit, they may be given for fewer than fifteen students; and be it further

Resolved, That course descriptions of Category 1 and Category 2 courses shall be available to students prior to registration; and be it further

Resolved, That each course's categorical status be identified in the course listings available to students; and be it further

Resolved, That the superintendent will review periodically the remaining courses known as Category 3 course offerings and recommend to the Board which courses will be eliminated because they are no longer timely or are of lesser value to students; and be it further

Resolved, That the Core of Courses be reviewed next year for its program and fiscal implications so as to impact the FY 1983 budget deliberations; and be it further

Resolved, That the Basic Core of Courses be as follows:

The Basic Core of Course Offerings

The asterisks used in this paper indicate the following:

*Available only in schools having ninth grades

**Available in 9-12 senior high schools, 10-12 senior high schools, and junior high schools with ninth grades

***A student may earn from one-half to two credits per semester in cooperative vocational education and industrial vocational programs since these courses in these programs meet for multiple periods.

NOTE: Exceptions to Category 1 and 2 requirements will be made, as appropriate, for schools involved in approved pilots of new courses.

DIVISION OF ACADEMIC SKILLS

Category 1 - Basic Core	Category 2 - Basic Core

ENGLISH LANGUAGE ARTS

*English 9A	Speech 1B
*English 9B	Journalism 1A
English 10A	Journalism 1B
English 10B	
English 11A	
English 11B	
English 12A	
English 12B	
English, Advanced Placement A	
English, Advanced Placement B	
Speech 1A	

READING

Basic Reading	Developmental Reading

FOREIGN LANGUAGES

**French, Level I A	French, Level V A
**French, Level I B	French, Level V B
**French, Level II A	French, Level VI A
**French, Level II B	French, Level VI B
French, Level III A	Spanish, Level V A
French, Level III B	Spanish, Level V B
French, Level IV A	Spanish, Level VI A
French, Level IV B	Spanish, Level VI B
**Spanish, Level I A	
**Spanish, Level I B	Two levels (four semesters) of <u>one</u> of the following languages:
**Spanish, Level II A	Latin, Japanese, Russian, Chinese, Italian, Hebrew, or German
**Spanish, Level II B	
Spanish, Level III A	
Spanish, Level III B	
Spanish, Level IV A	
Spanish, Level IV B	

MATHEMATICS

*Mathematics 9A	Consumer Mathematics A
*Mathematics 9B	Consumer Mathematics B
**Algebra 1A	Algebra 2 with Trigonometry A
**Algebra 1B	Algebra 2 with Trigonometry B
**Geometry A	Computer Mathematics
**Geometry B	
Algebra 2A	
Algebra 2B	
Elementary Functions	
Analytic Geometry	
Calculus A	
Calculus B	
Applications of Mathematics A	
Applications of Mathematics B	
Trigonometry	
Advanced Algebra	

Category 1 - Basic Core	Category 2 - Basic Core

SCIENCE

*Lab Science A *Lab Science B Biology 1A Biology 1B Chemistry 1A Chemistry 1B Physics 1A Physics 1B Earth Science 1A Earth Science 1B	Physical Science 1A Physical Science 1B
<u>One</u> of the following <u>pairs</u>: Biology 2A & Biology 2B Chemistry 2A & Chemistry 2B Physics 2A & Physics 2B Biology Advanced Placement A & Biology Advanced Placement B Chemistry Advanced Placement A & Chemistry Advanced Placement B	

SOCIAL STUDIES

*National, State, and Local Government *U.S. History 1 U.S. History 2 Contemporary Issues Modern World History A Modern World History B Economics	<u>Two</u> of the following: Latin American History Russian History Eastern Asia Africa South of the Sahara
<u>One</u> of the following pairs: U.S. History Advanced Placement A & U.S. History Advanced Placement B European History Advanced Placement A & European History Advanced Placement B	Any <u>two</u> of the following: Psychology A Problems of the Twentieth Century A Problems of the Twentieth Century B Sociology A

MULTIDISCIPLINARY PROGRAMS

The two courses below are administered from the central office and do not require school staffing: Student Aides for Kindergarten Teachers Executive High School Internships	

Category 1 - Basic Core	Category 2 - Basic Core

DIVISION OF AESTHETIC EDUCATION

VISUAL ART

**Fundamentals of Art A	Studio Art I A
**Fundamentals of Art B	Studio Art I B
	**Ceramics/Sculpture I A
	**Ceramics/Sculpture I B
	Commercial Art I A
	Commercial Art I B

MUSIC

Choral/General	General Music
One of the following pairs:	One of the following courses:
**General Chorus A & **General Chorus B	Music I A
**Chorus I A & ** Chorus I B	Guitar I A
Chorus II A & Chorus II B	Music Theory & Composition I A
Instrumental Music	Instrumental Music
One of the following pairs:	One of the following pairs:
Concert Band A & Concert Band B	Concert Orchestra A & Concert Orchestra B
Symphonic Band A & Symphonic Band B	Symphonic Orchestra A & Symphonic Orchestra B

THEATRE

Theatre I	Theatre II

Category 1 - Basic Core

Category 2 - Basic Core

DIVISION OF CAREER AND VOCATIONAL EDUCATION

COOPERATIVE VOCATIONAL EDUCATION

***Work-Oriented Curriculum Program

On-the-Job Training A & B

All courses in either of the following programs:

***Distributive Education Program

Distributive Education I A
Distributive Education I B
Distributive Education II A
Distributive Education II B
Distributive Education III A
Distributive Education III B
On-the-Job Training A & B

OR

***Cooperative Work Experience Program

Cooperative Work Experience I A
Cooperative Work Experience I B
Cooperative Work Experience II A
Cooperative Work Experience II B
On-the-Job Training A & B

INDUSTRIAL EDUCATION

Architectural Drawing I A
Architectural Drawing I B
Mechanical Drawing I A
Mechanical Drawing I B
Woodworking I A
Woodworking I B

General Industrial Arts I A
General Industrial Arts I B
Home Maintenance
Research and Experimentation

Category 1 - Basic Core

Category 2 - Basic Core

INDUSTRIAL EDUCATION/VOCATIONAL PROGRAMS

A minimum of one program must be given from the following 17 programs:

***Agriculture Program
- Agriculture I A
- Agriculture I B
- Agriculture II A
- Agriculture II B

***Air Conditioning and Refrigeration Program
- Air Conditioning and Refrigeration I A
- Air Conditioning and Refrigeration I B
- Air Conditioning and Refrigeration II A
- Air Conditioning and Refrigeration II B

***Auto Body Program
- Auto Body and Fender Mechanics I A
- Auto Body and Fender Mechanics I B
- Auto Body and Fender Mechanics II A
- Auto Body and Fender Mechanics II B

***Auto Mechanics Program
- Auto Mechanics I A
- Auto Mechanics I B
- Auto Mechanics II A
- Auto Mechanics II B

***Bricklaying Program
- Bricklaying I A
- Bricklaying I B
- Bricklaying II A
- Bricklaying II B

***Cabinetmaking Program
- Cabinetmaking I A
- Cabinetmaking I B
- Cabinetmaking II A
- Cabinetmaking II B

***Carpentry Program
- Carpentry I A
- Carpentry I B
- Carpentry II A
- Carpentry II B

***Cosmetology Program
- Cosmetology I A
- Cosmetology I B
- Cosmetology II A
- Cosmetology II B
- Cosmetology III A
- Cosmetology III B

Category 1 - Basic Core	Category 2 - Basic Core

INDUSTRIAL EDUCATION/VOCATIONAL PROGRAMS - cont'd

***Design, Illustrating, and Drafting Technology Program
- Design, Illustrating, and Drafting I A
- Design, Illustrating, and Drafting I B
- Design, Illustrating, and Drafting II A
- Design, Illustrating, and Drafting II B

***Electricity (Construction) Program
- Electricity (Construction) I A
- Electricity (Construction) I B
- Electricity (Construction) II A
- Electricity (Construction) II B

***Electronic Technology Program
- Electronic Technology I A
- Electronic Technology I B
- Electronic Technology II A
- Electronic Technology II B

***Horticulture Program
- Horticulture I A
- Horticulture I B
- Horticulture II A
- Horticulture II B

***Plumbing Program
- Plumbing I A
- Plumbing I B
- Plumbing II A
- Plumbing II B

***Power Mechanics Program
- Power Mechanics I A
- Power Mechanics I B
- Power Mechanics II A
- Power Mechanics II B

***Printing Program
- Printing I A
- Printing I B
- Printing II A
- Printing II B

***Radio and Television Servicing Program
- Radio and Television Servicing I A
- Radio and Television Servicing I B
- Radio and Television Servicing II A
- Radio and Television Servicing II B

Category 1 - Basic Core	Category 2 - Basic Core

INDUSTRIAL EDUCATION/VOCATIONAL PROGRAMS -concluded

***Welding Program
- Welding I A
- Welding I B
- Welding II A
- Welding II B

HOME ECONOMICS

- Child Development I A
- Child Development I B
- Independent Living

OR

Any two of the following:

- Creative Foods
- Creative Clothing
- Personal and Family Living A
- Housing and Interior Design

BUSINESS EDUCATION

- Typewriting I A
- Typewriting I B
- Typewriting II A
- Typewriting II B
- Shorthand I A
- Shorthand I B

- Shorthand II A
- Shorthand II B
- Advanced Typewriting A
- Transcription A
- Recordkeeping A
- Recordkeeping B
- Business Machines
- Business Mathematics A
- Business Mathematics B
- Office Practice
- *Exploring Business Careers A
- *Exploring Business Careers B

CAREER EDUCATION

- Career Awareness, Decision Making, and Job Seeking
- Internships

DIVISION OF DRIVER, HEALTH, AND PHYSICAL EDUCATION AND ATHLETICS

DRIVER EDUCATION

- Driver Education

HEALTH EDUCATION

- Family Life and Human Development

- *Ninth Grade Health Elective
- Human Behavior
- Health Elective I

Category 1 - Basic Core	Category 2 - Basic Core
PHYSICAL EDUCATION	
*Physical Education I A	
*Physical Education I B	
Physical Education II A	
Physical Education II B	
Physical Education III A	
Physical Education III B	
Physical Education IV A	
Physical Education IV B	

APPENDIX B

Department of Educational Accountability
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland 20850

June 9, 1982

MEMORANDUM

To: Dr. Lois A. Martin, Associate Superintendent for Instruction and Program Development
Dr. Harry Pitt, Deputy Superintendent of Schools
Dr. Robert S. Shaffner, Executive Assistant to the Superintendent of Schools

From: Steven M. Frankel, Director

Subject: Evaluation of the Basic Core of Course Offerings

The Department of Educational Accountability has been assigned responsibility to evaluate the impact of the Basic Core of Course Offerings. Based on our conversations with each of you, a review of the correspondence to the Board of Education on this topic, and a preliminary review of available statistical reports and documents, DEA can commit staff to prepare the required report within ninety work days of approval of the Study Issues matrix (attached).

The matrix contains a draft list of study questions which provide focus for the evaluation. Please review this draft and give us your suggestions for changes and/or clarificatio

Our approach to the evaluation will combine case study and audit sampling techniques. Using seven senior high schools, we will analyze their FY82 course offerings and related enrollment and staffing statistics. In addition, enrollments, staff allocations, student-to-staff ratios, and, if feasible, number of course offerings by Basic Core category will be determined for all 22 senior high schools for the two fiscal years.

The list of schools selected for participation in this study is also attached. These schools will be asked to retain all information showing course offerings, related staffing and enrollment statistics. DEA staff will not visit any schools until after the close of school.

Please review the list of selected schools and let us know by June 14 if you would like any schools added or deleted from the list. We will notify schools on June 15 as to their inclusion, to ensure that the used materials relating to course enrollments this year are not thrown away.

SMF:jal

Attachments

Copy to:
Dr. Andrews

BASIC CORE OF COURSE OFFERINGS: STUDY QUESTIONS

MAJOR QUESTION	SUBQUESTIONS	SOURCE OF DATA
1. To what extent is the Basic Core of Course Offerings implemented in all senior high schools?	1.1 In which subject areas are schools offering the required Basic Core Category I courses?	Distribution of Class Sizes
	1.2 In the subject areas where alternative Category I courses are available, which courses were offered?	Distribution of Class Sizes
	1.3 In which subject areas are schools meeting the offering requirements for Category II courses?	Distribution of Class Sizes
	1.4 Were any Category II courses not offered even though minimum enrollment guidelines were met?	Selected Schools: Site visit Scheduling Tally Sheets
	1.5 Did schools in their 1981-82 course offering bulletins include all Basic Core courses and categorical status designations?	Selected Schools: School course offering bulletins
	1.6 What practices were employed in counseling students into courses?	Interviews in Selected Schools
	1.7 Were there any differences between large and small schools in the extent to which the Basic Core was implemented?	Distribution of Class Sizes Official Enrollment Report

MAJOR QUESTION	SUBQUESTIONS	SOURCE OF DATA
2. To what degree had the Basic Core of Course Offerings been implemented prior to the Board Resolution (67-81)?	2.1 How many different courses were offered within Category I, II, and "Other" during the 1979-80 school year? What changes occurred in 1981-82?	Distribution of Class Sizes (First semester only)
	2.2 In what subject areas have the number of course offerings among Category I, Category II, and "Other" changed from 1979-80 to 1981-82?	Distribution of Class Sizes (First semester only)
	2.3 What previously offered Category II and "Other" courses are not now being offered?	Selected Schools: Site Visit Distribution of Class Sizes (First semester only)
	2.4 Did large schools offer a greater number of different Basic Core Courses than small schools?	Distribution of Class Sizes (First semester only)

MAJOR QUESTION	SUBQUESTIONS	SOURCE OF DATA
3. What changes have occurred in course enrollment?	3.1 Have enrollments changed in the Basic Core offerings? In "Other" offerings?	Selected Schools Distribution of Class Sizes (First semester only)
	3.2 Have the number of singleton course offerings changed in Category I? How many Category I or II singletons had enrollments under 15 students?	Selected Schools Distribution of Class Sizes (First semester only)
	*3.3 Are bright academic student enrollments in "Other" course offerings changing?	) Pupil Data base
	*3.4 Are average MCPS student enrollments in Basic Core offerings changing?	) Pupil Data base
	3.5 Within the Basic Core, are the proportions of student enrollments in "traditional" academic subjects vs. others, e.g., vocational education, home ecomonics, and the arts, remaining stable?	Distribution of Class Sizes (First semester only) Selected Schools

*May not be feasible within the study timeframe.

MAJOR QUESTION	SUBQUESTIONS	SOURCE OF DATA
4. What was the impact of the Basic Core on staffings?	4.1 Have senior high school staffings changed in proportion to the declining student population?	Senior High Certificated Staff Allocations, FY 80, FY 82 Statistical Profiles Official Enrollment Report
	4.2 Where have staffing changes been most pronounced--classroom teachers, other regular instruction teachers, other professionals?	Senior High Certificated Staff Allocations, FY 80, FY 82 Statistical Profiles
	4.3 Are classroom teacher allocations used for duties other than instruction in regular courses?	Selected Schools Statistical Profiles with Site Visit and School Records
	4.4 Were adjustment in staff use at the school level necessary to implement the Basic Core?	Selected Schools: Interview
	4.5 What are the variations in staff allocation formulas and why do we have them?	Responsible Administrator/s Interview

MAJOR QUESTION	SUBQUESTIONS	SOURCE OF DATA
5. What effect did the implementation of the Basic Core have on class sizes?	5.1 Were problems encountered in maintaining the BOE maximum class sizes?	Selected Schools: Site Visit
	5.2 What are the average class sizes for Category I, Category II, and "Other" course offerings for each subject area? What changes have occurred?	Distribution of Class Sizes (Changes - First semester only) Selected Schools
	5.3 Within the Basic Core, what are the class sizes in "academic" vs. other subjects? What changes have occurred?	Distribution of Class Sizes (First semester only) Selected Schools
	5.4 Are average class sizes related to school size? To schools with or without a ninth grade?	Official Enrollment Report Subquestion 5.2 Selected Schools
	5.5 Did the movement from a seven- to a six-period day affect average class sizes?	Selected Schools subsample Distribution of Class Sizes (First semester only)

MAJOR QUESTION	SUBQUESTIONS	SOURCE OF DATA
6. What effect does the Basic Core policy have on other system policies and practices or vice versa?	6.1 Did the Basic Core Policy seem to affect implementation of any other MCPS Regulation and/or Policy? If so, in what way?	Selected Schools: Site Visit
	6.2 What vehicle (monitoring system) exists for identifying modifications to the Program of Studies--course eliminations and consolidations, based on student enrollments and BOE directives?	Educational Services Center Staff Interview
	6.3 What computer report card application requirements would facilitate future monitoring of the implementation of the Basic Core?	Conduct of This Study
	6.4 Was the implementation of the Basic Core affected by the decision to move from 10-12 to 9-12 senior high schools?	Schools receiving a Ninth Grade in FY 82.
	6.5 Was the implementation of the Basic Core affected by the decision to move from a seven- to a six-period day? In what ways?	Schools having a seven-period day in FY 80 except for Poolesville.

SCHOOLS TO BE SAMPLED

Area	School	Reasons for Selection
1	Montgomery Blair High School	1. Large school 2. Stable enrollment since FY80 3. Received ninth grade in FY82 4. Six-period day in FY80
1	John F. Kennedy High School	1. Moderate size school 2. Increase in enrollment since FY8 3. Received 9th grade in FY82 4. Seven-period day in FY80
2	Rockville High School	1. Moderate size school 2. Stable enrollment since FY80 3. Ninth grade in FY80 4. Seven-period day in FY80
2	Charles W. Woodward High School	1. Small school 2. Increase in enrollment since FY8 3. Received ninth grade in FY82 4. Seven-period day in FY80
2	Winston Churchill High School	1. Large school 2. Decrease in enrollment since FY8 3. No ninth grade 4. Six-period day in FY80
3	Gaithersburg High School	1. Moderate size school 2. Stable enrollment since FY80 3. No ninth grade 4. Six-period day in FY80
3	Col. Zadok Magruder High School	1. Small to moderate size school 2. Decrease in enrollment since FY8 3. Ninth grade in FY80 4. Seven-period day in FY80

APPENDIX C

Department of Educational Accountability
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland 20850

June 16, 1982

MEMORANDUM

To: Selected Principals

From: Steven M. Frankel, Director

Refer Questions: Stephen Checkon, Coordinator, Evaluation/Planning, 279-3530
Constance L. Mitchell, Statistical Assistant, 279-3538

Subject: Evaluation of the Basic Core of Course Offerings

The Department of Educational Accountability has been assigned responsibility for the evaluation of the impact of the Basic Core of Course Offerings policy.

Your school has been selected to be part of the sample of schools whose enrollment and staffing patterns will be studied. Therefore, please alert appropriate staff so that information showing course offerings and related staffing and enrollment statistics is retained. Teacher schedules, class enrollment records, staff allocation sheets from area offices, and hand corrected computer printouts are examples of the types of records we would like you to set aside.

We will contact you sometime within the next two weeks to set up an appointment to collect the needed records early in the summer. DEA staff will do all of the work of collecting and synthesizing the materials, but your help is needed to ensure that the records are retained. We also will want to interview you about your experience in implementing the Basic Core of Course Offerings and the implications which it has had on staffing and course enrollments in your school.

Thank you for your assistance in this matter.

SMF:jal

Copy to:
Dr. Shaffner
Dr. Martin
Dr. Frankel

Approved: _____
Harry Pitt, Deputy Superintendent of Schools

Department of Educational Accountability
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland 20850

BASIC CORE OF COURSE OFFERINGS
EVALUATION
Principal Interview

INTERVIEWER: RECORD RESPONSES TO QUESTIONS ON YELLOW PAD. (READ THE FOLLOWING PRIOR TO THE START OF THE INTERVIEW.)

Purpose

The Department of Educational Accountability is conducting a study on the effects of the Basic Core of Course Offerings Resolution passed by the BOE on January 13, 1981. We are determining the degree to which the Basic Core is implemented, the problems faced by schools and the solutions found for these problems. We will describe current practices and the change that these practices represent, particularly in terms of course offerings and enrollments, and staffings, and for the 1981-82 school year, staff utilization. In addition, we are studying the effect this Resolution may have had on other BOE policies, regulations and administrative directives including the BOE mandated maximum class sizes.

Our approach to this study is one of using sample schools, existing data, where available, verifying that data with schools or offices and interviewing selected staff. In the interview we first address implementation of the Basic Core as it affected your school and then ask questions to clarify, as necessary, any of our preliminary findings. Following the interview, we would like to review school documents to verify the data we obtained from other sources. Here again, we want to generally assess our data and then, where we have specific questions, be guided to the appropriate documents for answers.

Today we plan to do the interview and review the Basic Core and staffing data. We will return later this summer to verify the other Category III offerings and to clarify any final questions we may have.

Shall we begin the interview?

EVALUATION OF THE BASIC CORE OF COURSE OFFERINGS: Principal Interview

PART I: School Implementation

1. In your scheduling for the 1982-83 school year, did you make use of the Course Bulletin prepared by the Office for Instruction and Program Development?

   (IF NO) Why not?

   (IF YES) How helpful was it? How could it be improved?

2. What (other) materials did you make available to students and their parents this spring? (OBTAIN COPIES)

3. What activities, if any, did you and your staff specifically address dealing with the implementation of the Basic Core this spring?

IN JANUARY 1981, YOU WERE NOTIFIED BY MEMORANDUM THAT THE BOE ADOPTED THE BASIC CORE OF COURSE OFFERINGS. (GIVE PRINCIPAL & SCHEDULING ADMINISTRATOR A COPY) DR. PITT ADVISED YOU TO REFER TO THAT RESOLUTION IN PREPARING YOUR 1981-82 COURSE OFFERING BULLETIN NOTING IN PARTICULAR THE REQUIREMENT TO INCLUDE ALL CATEGORY 1 AND 2 COURSES.

4. What effect did the receipt of that memo, or the resolution in general, have on your activities related to course offerings for the 1981-82 school year? (LIST SPECIFIC STEPS/ACTIVITIES TAKEN; INCLUDE STAFF INVOLVED)

   (OBTAIN COPIES OF MATERIALS PREPARED FOR STUDENTS AND PARENTS)

5. Are any subject areas more affected than others in your implementation of the Basic Core?

   (IF YES)

   a. Which ones?

   b. How was each affected?

6. Are any courses now not offered that were previously offered and given?

   (IF YES) What are they? Why are they not now given?

7. Do you see any patterns of changing enrollments in specific courses?

   (IF YES) Which ones? What is happening with enrollments?

   (PROBE) (1) Is there any change in the pattern of course selection among your high achieving students?

   (IF YES) Has this change occurred since 79-80?

   (2) (REPEAT FOR AVERAGE ACHIEVING STUDENTS)

   (3) (REPEAT FOR LOW ACHIEVING STUDENTS)

8. How adequate do you feel your staffing is for:

   a. Instruction in regular Program of Studies courses?

   b. The Basic Core of Course offerings?

   c. "Pull out" instruction?

   d. Others?

9. What adjustments, if any, were necessary in teacher schedules and in general staff use in order to implement the Basic Core?

10. Do you feel that you have the flexibility to use staff to best meet the needs of your student population? (GIVE EXAMPLES, E.G., PART-TIME TEACHERS)
Why/Why Not?

11. What effect did your implementation of the Basic Core have on your efforts to satisfy BOE mandated maximum class sizes?

(ASK QUESTION 12 ONLY IF SCHOOL HAS A NINTH GRADE)

12. Does having a ninth grade affect your implementation of the Basic Core? (IF YES) How?

(ASK QUESTION 13 ONLY IF SCHOOL HAD A SEVEN PERIOD DAY IN FY80)

13. How limiting is the six period day in offering and giving the Basic Core? Would a seven period day be helpful? (IF YES) How?

14. Did the Basic Core Resolution promote or negate any other MCPS policy, regulation or directive? (GIVE EXAMPLES, E.G., SENIOR HIGH POLICY)

15 How helpful is the computer report card system to you in monitoring your implementation of the Basic Core? How could it be made (more) useful?

16. Have you learned things in the first year of implementation which will cause you to do things differently in the future? (IF SO,) What?

17. Do you have additional comments you would like to make on the impact of the Basic Core before we move to specific questions about the data we gathered on your school?

Department of Educational Accountability
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, MD 20853

Basic Core of Course Offerings Evaluation
Principal Interview: Part II

School Name _____ Date and Time of Visit _____

Names of People Interviewed _____
(Obtain phone number where principal can be reached. Ask if it is ok to look at data if needed when he/she is out.) _____
_____

COURSE INFORMATION

Category I - Courses not offered. Why?

Clarify Industrial Education/Vocational Program.

Category II - Courses not offered. (PROBE) Were there 15 students signed up and the course was still not offered. Why?

Small Classes - Category I:

Category II:

Changes occurring from FY80 to FY82 (IS THE CHANGE ATTRIBUTABLE TO BASIC CORE IMPLEMENTATION?)

How do you handle "pullout" students: i.e., those that leave school to attend other schools for programs not offered in your school: internships, vocational education programs. Codes used in scheduling "00" and sometimes one more period number than available in the school.

STAFFING INFORMATION

How do you determine the teaching load for your part-time teachers?

Clarify teacher allocation/data base differences.

How do you use your special allocation staff? (ESOL, Resource Room, Disadvantaged, QIE)

AUDIT PROCEDURE

We need to look at teacher schedules/grade books/other records showing teacher/staff assignments and class enrollments. What materials have you gathered for us?

Driver Education and Physical Education programs are a problem the way in which they are scheduled. Need to get Driver Education actual periods taught by which teachers.

APPENDIX D

Number of Courses in the Basic Core of Course Offerings by Subject Area and Category

Subject Area	Category I Grades 10-12	Category I Grade 9	Category II Grades 10-12	Category II Grade 9	Total Grades: 10-12	Total Grades: 9-12
Group A						
1. English Language Arts	9	2	3	-	12	14
2. Reading	1	-	1	-	2	2
3. Foreign Language	16	-	12	-	28	28
4. Mathematics	14	2	5	-	19	21
5. Science	10	2	2	-	12	14
6. Social Studies	7	2	4	-	9	11
Group A Subtotal	57	8	27	0	84	92
Group B						
7. Multidisciplinary	2[1]	-	-	-	2	2
8. Visual Art	2	-	6	-	8	8
9. Music	4	-	3	-	7	7
10. Threatre	1	-	1	-	2	2
11. Cooperative Vocational Education	8-10[2]	-	-	-	8-10	8-10
12. Industrial Education	6	-	5	-	11	11
13. Industrial Education/ Vocational Programs	4-6[2]	-	-	-	4-6	4-6
14. Home Economics	3-4[2]	-	-	-	3-4	3-4
15. Business Education	6[3]	-	11	2	17	19
16. Career Education	2[3]	-	-	-	2	2
17. Driver Education	-	-	1	-	1	1
18. Health Education	1	-	2	1	3	4
19. Physical Education	6	2	-	-	6	8
Group B Subtotal	45-50	2	29	3	74-79	79-84
Total	102-107	10	56	3	158-163	171-176

[1]Offerings not school-based; no school resources needed to implement courses.

[2]Number of courses in subject area differ depending on options selected.

[3]Includes course title internship.

APPENDIX E

Montgomery County Public Schools

Office of the Principal
WINSTON CHURCHILL HIGH SCHOOL
11300 Gainsborough Road ☐ Potomac, Maryland 20854 ☐ Telephone (301) 469-8300

June 16, 1982

MEMORANDUM

To: Dr. George Usdansky,
Coordinator, New Program Development

From: C. Tyrand Bready, Chairperson

Subject: Revision of Course Bulletin

This spring, the Senior High Principals Association decided to review the current Course Bulletin to ascertain what items needed to be revised, updated, etc. A committee chaired by Ms. Terrill Meyer was appointed to formalize this process.

The attached suggested revisions are attached for your review. Ms. Meyer and I would like to meet with you sometime in the near future to discuss these suggested revisions so that we can proceed on printing a revised edition for the 1982-83 school year.

Please contact me if you have any questions on this matter.

CFB:gss
Attachment

Copy to:
Dr. Lois Martin
Ms. Terrill Meyer
Mr. Nate Pearson
Mr. Anson Wilcox

Revision of the Course Bulletin

1. Number pages and include a table of contents.

2. List groups of courses alphabetically by subject. Courses within each subject grouping should be listed numerically.

3. Order course numberings systemically. Those for vocational offerings appear most inconsistent. Perhaps this could be done in 1983-84 when the Program of Studies is to be revised.

4. Identify clearly honors and advanced placement courses, listing uniform criteria for entry and minimum requirements for continuing in these courses.

5. Diagram recommended course sequences, especially those involving rigorous offerings. This recommendation is proposed for 1983-84 when the Office of Instruction and Program Development plans to develop a brochure which contains recommended course sequences.

6. Several suggestions were made regarding the use of headings, boldface, and graphics. The only format recommendation on which consensus could be achieved was increasing the use of charts wherever possible, e.g., in listing vocational offerings and graduation requirements, etc.

APPENDIX F

Percentage of First Semester Student Course Enrollments for Seven Selected Senior High Schools by Subject Area and Basic Core Category for the 1979-80 and 1981-82 School Years

Subject Area	PERCENT OF COURSE ENROLLMENTS[1]							
	Category 1		Category 2		Other		Total	
	1981-82	1979-80	1981-82	1979-80	1981-82	1979-80	1981-82	1979-80
English	17.7	17.3	0.3	0.5	0.3	0.3	18.3	18.1
Reading	0.3	0.2	0.2	0.4	-	-	0.5	0.5
Foreign Languages	6.3	5.5	1.0	1.2	0.1	0.2	7.4	6.9
Mathematics	10.9	11.2	1.9	1.3	2.0	1.7	14.8	14.2
Science	12.1	10.7	0.4	0.5	1.2	1.2	13.6	12.5
Social Studies	9.9	9.0	3.1	3.1	2.2	2.5	15.3	14.6
Subtotal: Group A	57.1	53.9	7.0	7.0	5.9	5.8	70.0	66.7
Multidisciplinary								
Visual Art	0.4	0.7	1.2	1.5	1.0	1.7	2.6	3.9
Music	1.2	1.0	0.4	0.5	0.6	0.8	2.3	2.4
Theatre	0.2	0.5	0.0	0.0	0.1	0.1	0.3	0.5
Coop. Vocational Ed.	2.3	1.8	-	-	0.4	0.1	2.7	1.9
Industrial Education	1.5	1.8	0.1	0.1	0.8	1.5	2.3	3.4
Ind. Ed./Voc. Programs	0.9	1.6	-	-	0.0	0.1	0.9	1.6
Home Economics	1.2	1.8	-	-	1.0	1.3	2.2	3.1
Business Education	3.1	3.6	0.8	0.9	2.3	2.7	6.2	7.1
Career Education	0.3	0.4	-	-	0.1	0.0	0.4	0.4
Driver Education	-	-	1.6	1.7	-	-	1.6	1.7
Health Education	0.1	0.1	0.3	0.1	-	-	0.4	0.2
Physical Education	7.6	6.8	-	-	0.5	0.3	8.1	7.1
Subtotal: Group B	19.0	20.0	4.3	4.8	6.7	8.4	30.0	33.3
Total	76.1	73.9	11.3	11.8	12.6	14.3	100%	100%

[1]Percents do not always sum to subtotal due to rounding.
Course Enrollments totals: 1981-82 school year 55,635; 1979-80 school year 57,988.

APPENDIX G

Percent of Selected Students Enrolled in One or More Courses by Subject Area and Performance on the MCPS Eleventh Grade Countywide Testing Program for the 1981-82 School Year

Subject Area	Performance Level (Composit Test Score)		
	Highest	Average	Lowest
Multidisciplinary	0%	1%	1%
Visual Art	12	15	15
Music	25	13	10
Theatre	1	3	<1
Coop. Vocational Ed.	0	3	35
Industrial Education	5	17	16
Ind. Ed./Voc. Programs	1	8	17
Home Economics	6	20	24
Business Education	17	44	34
Career Education	<1	6	5
Driver Education	18	24	29
Health Education	1	7	6
Physical Education	28	53	55
Non-Credit Assign.	20	30	25
Foreign Languages	81	38	4
Reading	0	5	15
English, Math, Science, and/or Social Studies	100%	100%	100%
Number of Students (612)	212	201	199

APPENDIX H

Average Class Sizes for Seven Selected Senior High Schools by Subject Area and Basic Core Category for the 1979-80 and 1981-82 School Years

Subject Area	PERCENT OF COURSE ENROLLMENTS							
	Category 1		Category 2		Other		Total	
	1981-82	1979-80	1981-82	1979-80	1981-82	1979-80	1981-82	1979-80
English	24.1	24.3	20.9	22.9	19.9	22.0	24.0	24.1
Reading	21.9	17.3	9.3	10.7	NA	NA	14.2	12.3
Foreign Languages	23.9	23.1	20.6	19.5	15.0	18.8	23.1	22.3
Mathematics	26.3	26.5	24.4	23.2	22.3	22.5	25.4	25.6
Science	26.2	26.0	23.7	19.4	20.7	22.8	25.6	25.3
Social Studies	26.2	25.7	27.3	26.9	24.0	24.8	26	25.8
Group A	25.3	25.1	23.6	22.2	22.1	23.3	24.8	24.6
Multidisciplinary	-[1]	-	-	-	-	-	-	-
Visual Art	22.6	25.8	21.7	24.0	19.2	20.4	20.8	22.6
Music	35.2	33.4	16.9	16.7	23.5	22.9	26.2	24.1
Theatre	19.2	26.5	-	-	20.7	21.0	19.7	25.6
Coop. Vocational Ed.	27.1	27.0	NA	NA	16.0	11.8	24.7	25.5
Industrial Education	23.9	24.1	19.0	16.5	16.8	20.9	20.9	22.4
Ind. Ed./Voc. Programs	16.8	21.1	NA	NA	0	28.0	16.8	21.3
Home Economics	21.1	21.5	NA	NA	16.7	18.9	18.8	20.3
Business Education	26.0	27.7	16.7	19.4	23.7	25.3	23.5	25.4
Career Education	14.3	21.2	NA	NA	13.0	0	14.1	21.2
Driver Education	NA	NA	10.7	11.1	NA	NA	10.7	11.1
Health Education	22.3	19.5	27.0	19.7	NA	NA	25.4	19.6
Physical Education	-[2]	-	-	-	-	-	-	-
Group B	24.1	25.1	15.0	15.8	19.8	21.7	20.4	21.8
All Subject Areas	25.1	25.1	19.4	19.0	20.9	22.4	23.6	23.7

[1] Courses are not school-based offerings.
[2] Not determined due to school students scheduling practices.

APPENDIX I

Office of the Superintendent of Schools
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland

INFORMATION
9.3

December 21, 1981

MEMORANDUM

To: Members of the Board of Education

From: Edward Andrews, Superintendent of Schools

Subject: Elimination of Grades 9-12 Courses From the Program of Studies

Board of Education Resolution 67-81, which was adopted on January 13, 1981, and which established a basic core of courses, contains as its seventh resolve:

> Resolved. That the superintendent will review periodically the remaining courses known as Category 3 course offerings and recommend to the Board which courses will be eliminated because they are no longer timely or are of lesser value to students;

As a basis for this periodical review, staff members of the Office for Instruction and Program Development developed Guidelines for Review of Secondary Courses (Attachment A); and the subject area coordinators have reviewed their courses in the light of these guidelines. As a consequence, the Grades 9-12 courses listed below are recommended for elimination from the Program of Studies beginning with the FY 1983 school year.

The three Home Economics courses, advanced Clothing B, Special Topics in Home Economics B, and Personal anf Family Living B, are being eliminated on the basis of combining the "A" and "B" semesters of these courses for more efficient instruction. Program of Studies descriptions for the resulting three new semester courses, each of which will replace what are now the "A" and the "B" semesters, are attached for your approval (Attachment B).

The current Program of Studies descriptions of those courses are also attached (Attachment C).

SUBJECT AND COURSE TITLE	COMMENTS
Department of Academic Skills	
Mathematics	
Matrices	There is no need currently for a separate course in matrices, since the fundamental concepts underlying this course — determinants and matrices — are now taught in the Algebra 2B, Elementary Functions, and Advanced Algebra courses. This was not true when the course was instituted. Records indicate that this course has been in only one school in the past five years, and only twice there.
Mathematics in our Culture	The primary goal of this course was to enhance the student's understanding of mathematics as a vital element in our culture through exploration of impact of mathematics on society. The course was available originally to students who had completed Algebra 2B. The content of this course is now being integrated in all secondary mathematics courses, thus enriching the program for all students. Records indicate that the course has been offered in only two schools over the past seven years, and in these schools only a couple of times.
Department of Career and Vocational Education	
Business Education	
Basic Business Skills A and B Business Economics Consumer Economics A and B Fundamentals of Selling General Merchandising	The objectives of these courses are being met through other business, social studies, and cooperative vocational education courses, more frequently taken.
Home Economics	
Advanced Clothing B Special Topics in Home Economics 2 Personal and Family Living B	Instructional efficiency and effectiveness can be achieved by combining these courses with their semester "A" counterparts to develop new one-semester courses. (See Attachment B for the revised descriptions of the proposed one-semester courses.)

SUBJECT AND COURSE TITLE	COMMENTS
Department of Career and Vocational Education (Continued)	
Industrial Education	
Auto Body 1A and 1B (Single Period)	Effective instruction in this area requires blocks of time greater than a single period. The remaining auto body courses include double and triple periods for suitable blocks of instruction.

Board of Education action on these course eliminations and revisions, to be effective for the 1982-83 school year, will be requested on January 25, 1982. This will be scheduled as a consent item unless Board members request that it be scheduled for discussion.

Attachments

EA:LAM:dac

ATTACHMENT A

Guidelines for Review of Secondary Courses

The rationale for the inclusion of credit-bearing courses in the MCPS secondary program is based on regulations from MSDE and policies from the Board of Education. The MSDE publication "Graduation Requirements for Public High Schools in Maryland" (November 1974) begins with a statement about the scope of secondary education. This statement provides some general guidance about course content:

> The school program should enable the student to acquire the knowledge necessary to understand his or her world and to respond to it with intelligence, maturity, and a sense of responsibility. It should encourage one to explore ideas and feelings, to ask questions, and to find answers that will lead to useful and valid conclusions. It should develop the student's skills and abilities to communicate, to participate in decision-making, and to become involved in social interaction and human interdependence. Also, the school should help the student to formulate a personal value system and to understand the values of others.

The Board of Education has, through its own policies, extended the guidance offered by MSDE. Foremost of these policies are the MCPS Goals of Education (February 12, 1973) and the MCPS Program of Studies, which includes a point of view and guiding objectives for each content area.

Further, as part of its commitment to help each student develop a personal value system, the MCPS curriculum is designed to develop in students positive attitudes toward justice, human dignity, equal opportunity, and pluralism. This goal impacts on the selection of skills, content, and instructional materials. Another goal is that of maintaining a comprehensive program for each high school student which provides students the opportunity to explore appropriate fields of learning.

When considering the addition to or deletion of courses from the Program of Studies, it is suggested that five criteria be used. No one criterion should be considered in isolation but merely as one factor in the decision-making process.

CRITERIA

Federal, State, Local Mandates

Courses should be considered for addition or deletion in light of the federal, state, and local mandates. For example, courses which address Project Basic are appropriate for the Program of Studies. Courses originally designed to meet mandates no longer in force may be considered for deletion.

Course Use

A course should be considered for deletion if only a small number of students in a limited number of schools are taking the course and it is unlikely that interest in the course will increase. Enrollment data for the most recent two years should be reviewed.

Student Specialization

A course should be considered for deletion if the content represents a degree of specialization which is not appropriate to a comprehensive high school education. Consideration must be given to the students' selection of courses in their four-year plan, prerequisites in their identified program, program graduation requirements, and prerequisites for entrance into post-graduation programs.

Teacher Specialization

A course should be considered for deletion if it requires a degree of teacher specialization or training that makes it unlikely that it will be taught by many teachers. Consideration must also be given to the impact that the staffing for this course may have on the staffing of the Basic Core.

Overlap

A course should be considered for deletion if its content and objectives are closely related to those of another course or to an abbreviated, extended, or specialized version of another course. Justification must be provided for retaining courses which appear to overlap but which in fact may serve the needs of students enrolled in different programs; e.g., Business Economics and Economics.

Timeliness

A course should be considered for deletion if it is closely tied to or if it relies on specific instructional materials which are no longer readily available. Further, consideration should be given if the course no longer has its initial intent or effectiveness. Conversely, as courses are deleted, there may be a need for additional courses to fill gaps in sequential programs resulting from research, trends, or technological advances.

Revision of the 1979 Program of Studies, Home Economics Grades 9-12

Personal and Family Living
4742 ½ credit

This course emphasizes self-development through study of personality, emotions, defense mechanisms, communication skills, and role expectations. It is concerned with interpersonal relationships within and outside the family.

Advantages and disadvantages of both single and married life are discussed. Family structures, including parenthood, and roles of family members are also explored.

Written parental permission allows MCPS teachers who satisfy county requirements to include units Family Life Education Part II: Contraception.

Upon completion of Personal and Family Living, the student should be able to:

- understand the meaning and development of human personality and factors which affect it
- identify and analyze communication techniques
- apply decision-making and problem-solving strategies
- understand the significance and functions of peer group and family relationships
- identify satisfactions and adjustments of married and single life
- recognize sources of and resources for dealing with stress situations in individual and family life
- explain developmental tasks throughout the family life cycle
- analyze the role of parenthood and develop a philosophy of child guidance

Advanced Clothing
Prerequisite: Attainment of Objectives of Creative Clothing.
4690 ½ credit

Students are encouraged to individualize projects through the use of advanced sewing construction techniques and gain experience with fabrics requiring special handling. Students provide project materials.

Upon completion of Advanced Clothing, the student should be able to:

- demonstrate use of interfacings, underlinings, and linings
- identify sewing techniques for fabrics requiring special handling
- identify creative use of sewing notions
- make and use accessories to personalize and expand the wardrobe
- evaluate clothing according to cost and quality
- identify the skills and opportunities associated with related occupations

Special Topics in Home Economics
4600 ½ credit

Special Topics is designed for students who wish to study more than one topic in home economics within a semester. The course content may differ with each group of students. Students and teachers together select two units from the basic areas of home economics: Nutrition and Foods, Textiles and Clothing, Consumer Education and Management, Personal and Family Living, Child Development, and Housing and Interior Design.

Suggested topics are Infancy and the Toddler; Personal Development; Baking; Party Foods; Outdoor Cooking; Pattern Design; Dramatic Costuming; Dealing with Dollars; Natural Living; Color Theory; Special Fabrics; Microwave Cooking; Decorating on a Shoestring. Instruction in the food and clothing areas is individualized insofar as class size allows.

Content is based on the units in the original comprehensive courses of Home Economics I, II, III, and IV, and on the nine-week restructured courses.

On completion of Special Topics in Home Economics, the student should be able to:

- fulfill the outcomes listed for the units chosen
- pursue competencies in self-development in all areas of study
- discover possible career and professional opportunities in home economics and related fields

Text of Board Resolution 67-82, adopted January 25, 1982
Re: Elimination of Grades 9-12 Courses from the Program of Studies

On recommendation of the superintendent and on motion of Mr. Ewing seconded by Mrs. Peyser, the following resolution was adopted unanimously;

WHEREAS, The school laws of Maryland specify that the county superintendent shall prepare courses of study and recommend them for adoption by the county Board (The Public School Laws of Maryland, Article 77, Section 4-205); and

WHEREAS, Board of Education policy has resolved "that newly developed curriculum documents will be presented to the Board of Education for consideration approximately one month prior to the date on which approval will be sought and the superintendent of schools may extend this period to allow further time for citizen reaction to curriculum documents dealing with sensitive topics...." (from Board Resolution No. 400-73, June 18, 1973); and

WHEREAS, The Program of Studies is the document which contains the prescribed curriculum elements, including instructional objectives, of all MCPS curriculum programs and courses (MCPS Regulation 345-1, Development and Approval of Curriculum and supporting Materials); and

WHEREAS, Excellence in curriculum can be maintained only continuing attention to the need for curriculum change; and

WHEREAS, The Council on Instruction, charged by the superintendent with considering recommendations for curriculum change, has recommended approval of these course eliminations and attendant revisions; and

WHEREAS, The superintendent recommends that the Board approve the course eliminations and revisions presented to the Board of December 21, 1981; now therefore be it

Resolved, That the Board of Education approve the elimination from the Program of Studies, effective with the 1982-83 school year, of the following semester courses:

Mathematics:	Matrices
	Mathematics in our Culture
Business Education:	Basic Business Skills A and B
	Business Economics
	Consumer Economics A and B
	Fundamentals of Selling
	General Merchandising
Home Economics:	Advanced Clothing B
	Special Topics in Home Economics 2
	Personal and Family Living B
Industrial Education:	Auto Body 1A and 1B (Single Period);

and be it further

Resolved, That the Board of Education approve the revised courses in Personal and Family Living, Advanced Clothing, and Special Topics in Home Economics for publication in the MCPS Program of Studies as part of the home economics Grades 9-12 curriculum; and these revised courses will become effective beginning with the 1982-83 school year; and be it further

Resolved, That the superintendent be requested to come to the Board in a timely fashion with a further review of and consideration of the possible elimination of additional courses.